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THE ASSOCIATION OF CHOREA WITH *TÆNIA SOLIUM*:
ILLUSTRATED BY TWO TYPICAL CASES.

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ON several occasions I have observed the association of chorea with thread- and round-worms, but in every instance the patient had a definite rheumatic history, either personal or in the family. Cases of chorea in which tapeworms are present are much less common, and therefore deserve to be recorded whenever met with. As I have quite recently had two such cases brought under my notice, I make no apology for giving brief histories of these, in the hope that they may prove interesting and instructive. The importance of the cases about to be recorded lies in the fact that both were unusually severe in their nature and that both were associated with the presence of *Tænia solium*.

The first case was that of a girl 17 years of age, but looking very much younger. She was said to have developed choreic

movements five days before I saw her. These were, to commence with, limited entirely to the right side of the body and face, but now they were generalised. Her previous history showed that she had never had measles, scarlatina, or acute rheumatism, though it was impossible to gather from her relatives whether or not she had had any definite rheumatic affection. Four years before she had a slight choreic seizure, said to have been brought on by fright. She had never menstruated, and had always been a very excitable child. The only facts pointing to rheumatism in the family history were that the patient's mother was rheumatic and that one of the girl's sisters suffered from chorea shortly after her convalescence from an attack having all the evidence of acute rheumatism.

When I first saw the patient she was lying in bed. The movements were very violent, involving the head and face as well as the body and limbs. At times she contrived to throw herself out of bed on to the floor, and had injured herself in consequence. The pulse was 128, and the respirations 32 per minute. The axillary temperature was 99·6° F. Breathing was evidently very difficult owing to spasmodic and irregular action of the respiratory muscles. When spoken to the patient made no reply. The heart was dilated, but there was no murmur audible, though great difficulty was experienced in conducting the physical examination of the patient owing to her grotesque movements.

At the outset 5 grains of Hydrarg. Subchlor. were administered, which resulted in a very thorough action of the bowels. She was placed upon a diet composed solely of milk. A mixture of Sod. Brom. grs. xv and Tinct. Digitalis $\mathfrak{m}\mathfrak{v}$ was ordered to be taken every four hours. The treatment was continued for four days without any very obvious effect. It was then considered advisable to try Sodii Salicylas, which was given in 10-grain doses every six hours, while the bromide and digitalis mixture was continued every four hours as before. At the end of a week no improvement whatever was noticed. The probability of worms being present was then thought of, and accordingly a capsule containing Extr. Filicis Liq. was ordered. This resulted in the passage of a large tapeworm. Unfortunately the head could not be found in the dejecta.

From this time the patient began to improve. The improvement was not, however, immediately apparent; but within three days after the segments of the worm were passed she answered "yes" to questions which were put to her. This was the first time the patient had spoken since the onset of the attack. The pulse now became normal, and the movements gradually became less violent and

finally subsided. Three weeks after she had been under my care I noted that the choreic movements had practically ceased, that the patient could talk quite well, and that she now slept a great deal even during the day, although the bromide mixture had been stopped for more than a week. A second dose of Extr. Filicis Liq. was successful in bringing away the head of the worm, together with a large number of segments, and from that time the patient made a complete recovery.

The second case to which I wish to refer is that of a girl aged 12 years. Exactly a year before the onset of the present illness she had had an attack of pleurisy associated with pains in both lower limbs, no doubt rheumatic in nature. She had never been quite the same since, and had gradually become pale and very nervous. Two days before I was called in the patient was noticed to be very stupid and clumsy in her movements. When writing in school, the school-mistress observed twitchings in the hands and face. The parents were both rheumatic, and her younger brother suffered from sore throat and "growing pains." When first seen the child was sitting on a chair making grimaces, and twisting and wriggling about. She was ordered to bed and put on a milk diet. A dose of Hydrarg. Subchlor. was administered. Next day she seemed slightly better. The heart was examined carefully, and was found to be dilated, while the pulmonary second sound was noticed to be markedly accentuated. Aspirin in $7\frac{1}{2}$ -grain doses was ordered to be taken every four hours. This was continued for eight days without result; in fact, the patient's movements were gradually becoming more pronounced. Arsenic was then given in addition, and this was pushed up to 10 drops thrice daily. In three weeks' time the patient's condition had assumed a somewhat serious aspect. She had now become very breathless, and the respirations numbered 36 per minute. The temperature had risen from normal to 101° F., while the pulse was very rapid and feeble. Bearing in mind my experience in the former case, I resolved to try the effect of a dose of Extr. Filicis Liq., and accordingly a capsule containing 30 minims was administered. The sequel was very striking. A fairly large sized specimen of *Tænia solium* was passed, and fortunately the head came away along with the other segments. Almost immediately the choreic movements ceased, though it was fully a fortnight before the heart recovered its tone. The child is now perfectly well, although the accentuation of the pulmonary second sound still remains, and the heart continues to be slightly dilated.

These two cases are interesting in many respects. In the first

place I wish it to be carefully noted that in both instances there was a history of rheumatism. Further, both patients were females and of distinctly neurotic temperament. Again, the removal of the tapeworm was followed by an almost immediate relief of the symptoms. I have brought these two cases before the notice of readers of this JOURNAL in the hope that they may be encouraged to place on record experiences of a similar nature. Moreover, cases such as these serve to prove that chorea, even in rheumatic subjects, may have its origin in causes other than the rheumatic toxin, and of these tapeworm is by no means the least important. The presence of tapeworm should at least always be borne in mind in those cases of chorea which prove unamenable to the usual routine treatment.

LOBAR PNEUMONIA IN CHILDREN.

By BERTRAM ABRAHAMS, M.B., B.Sc., M.R.C.P.,

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ONE of the most striking advances in medical science which have come about during the past twenty years has been the recognition that certain diseases run a course in children which is totally different from that followed in adults. The knowledge of this fact as regards acute rheumatism has led to enormous strides in the treatment of the disease in children, and in the prevention of valvular heart disease. The discovery, too, of the infantile form of scurvy has unquestionably alleviated a not inconsiderable amount of suffering, particularly among the children of the better classes. But such discoveries if their application be pushed too far may in themselves be productive of some harm, and it cannot be denied that there has been of late something of a tendency to regard the diseases of childhood as *eorum generis*, and totally distinct from the maladies met with in adult life. Thus, for example, it had been almost an article of belief that pleural effusions in children invariably tend towards suppuration, and this view is still widely prevalent, in spite of Dr. George Carpenter and others having shown that serous pleurisy is quite as common in children as empyema. The experience of all who are largely interested in pædiatrics is full of examples in which the course of a disease in a child exactly copies that which it would follow in an adult. We are all familiar with phthisis in children beginning at

the apex of the lung; some of us have even seen young children die of hæmorrhage in typhoid fever.

Among the diseases of which the frequent occurrence in children is insufficiently recognised is lobar pneumonia, which is quite a common affection from the age of two and upwards. As it presents certain features in which it differs somewhat strikingly from the adult malady, I propose to give a short account of it, and to lay stress upon these peculiarities.

The seasonal incidence of lobar pneumonia in children reaches its maximum in the spring, but does not show anything like so definite and well-marked a curve as is found with adults. As with them, the malady attacks chiefly those who are debilitated, but the period of preliminary bronchitis, which is usually so conspicuous in cases of broncho-pneumonia, is absent, the onset being typically sudden. Now all diseases which commence suddenly in children exhibit a general similarity in their initial symptoms, which are usually nervous or gastro-intestinal, or both. A child which is attacked by lobar pneumonia may therefore have convulsions with or without vomiting and diarrhœa; in such a case the only other symptoms will be high fever and a dry, burning skin. It may be assumed that at this stage physical signs in the lungs will not have developed. The first idea of the practitioner will naturally be that the little patient has scarlet fever, and it is not until the time for the characteristic rash and sore throat has elapsed that this affection can be excluded. Another disease which may be closely simulated at the onset is meningitis. Lobar pneumonia in children is, as I shall have occasion to mention, very frequently apical, and it is these apical cases which are particularly liable to be ushered in by head symptoms. Some years ago I had an amusing experience of this in out-patient practice. A child was brought in with head retraction, squint, and a history of convulsions. I pointed out to the students that in making the diagnosis apical pneumonia must be amongst the diseases to be excluded; we accordingly examined the chest and found no abnormal physical signs. The child was sent into the hospital with a diagnosis of basal meningitis; next day it developed the typical signs of apical pneumonia. I ought not to have made the mistake, as the child's temperature in the out-patients' room was 105° , a height which is virtually never reached at the onset of basal meningitis.

When the disease is established there is usually very little difficulty in diagnosis. It must be remembered, however, that the lobar type is not always strictly adhered to. One not infrequently finds a patch of consolidation in one or other axilla, or there may be

dulness over the whole back of the chest on one side. The dulness is not as a rule extreme, the note having usually rather a ringing tubular character. The apices are frequently affected; they were primarily attacked in eighteen out of sixty-two cases of which I have notes. On auscultation, tubular breathing can always be heard, together with fine, high-pitched râles. The very loud râles, resembling the pattering of rain on an open umbrella, which are characteristic of broncho-pneumonia, are not to be heard in the lobar variety. The physical signs in the latter are usually confined to one patch, unless the disease be bilateral. The random distribution observed in broncho-pneumonia finds no counterpart here. The temperature also differs strikingly from the irregular fever of broncho-pneumonia, rising abruptly and remaining high till the crisis. Since the prevalence of influenza in our midst I have, however, noticed that in children, as in adults, lobar pneumonia exhibits an increasing tendency to terminate by lysis. The dyspnoea and cyanosis which are usually such conspicuous signs of broncho-pneumonia are absent in the variety under consideration, unless, indeed, both lungs be simultaneously affected. Cough is not a marked symptom, at any rate at first, and this is particularly the case in the apical form. The principal *complications* are pleurisy, which is so constant as to be one of the phenomena of the disease, and hyperpyrexia. Pericarditis supervenes more frequently than in adults; I have seen one case in which a fatal termination was due to this complication. Jaundice, nephritis, and meningitis are rarely associated with the disease, and the same may be said of gangrene of the lung. The chief danger apart from hyperpyrexia is asphyxia, but the prognosis on the whole is exceedingly favourable. It is not uncommon, however, for some dulness to persist for weeks after the attack has passed away. Empyema is not an infrequent sequela, and is of course a far less grave disease than in adults.

As to *treatment*, very little need be added to the dictates of common sense. The child should be isolated in an airy room, and the symptoms met as they arise. Stimulants will hardly ever be necessary, and a mild expectorant, such as a grain of ammonium carbonate occasionally in milk, will effectually relieve the pulmonary discomfort. If both lungs are involved, it may be necessary to give oxygen and digitalis. The application of leeches to the precordia may here be of great service. Convalescence is as a rule rapid, and the child is virtually well within a fortnight of the onset.

THE TREATMENT OF TRACHEOTOMY WOUNDS IN
DIPHTHERIA.

By A. ERNEST JONES, M.D., B.S.Lond., M.R.C.P.

TRACHEOTOMY wounds in diphtheria in the majority of instances heal up readily, being usually impervious to air after five to eight days, and quite sound in from ten to fourteen days. There are, however, certain conditions which prevent the attainment of this desideratum, and the results of this non-union are extremely serious, both as regards the child's health and general welfare. A sinus left for six months after tracheotomy is as a rule very difficult to cure, the attempt involving great peril to the child's life; and the child grows up in most cases an inarticulate being, with all the tremendous drawbacks to such a condition. In addition, there is the trouble and risk attached to the care of the permanent tube, and the increased liability to bronchitis and other respiratory infections. It is the experience of those who have seen much of these cases that they suffer more than other children from bronchitis, but are less susceptible to pulmonary tuberculosis. This is in harmony with the general views held with reference to these affections in children, the one being a direct infection down the respiratory tract and the other more commonly a tonsillar or glandular infection. The increased liability to bronchitic attacks is probably to be attributed to the loss of the filtering action of the nasal mucous membrane—thus resembling one of the ways in which adenoid mouth breathers are liable to bronchitis,—and not to the direct influence of the cold air taken into the lungs. For these and other reasons it is therefore a highly important thing to endeavour to obtain early union of the wound as soon as possible after its *raison d'être*—the relief of obstruction—has been fulfilled.

The chief conditions which militate against this early union are the following :

(A) *Continued Presence of Obstruction in the Glottis.*

1. Mechanical obstruction, due to organic changes in the vocal cords. These changes may be either a primary cicatrization, due to the diphtherial lesion, or a secondary one, due to the irritation of intubation or other mechanical interference. This latter mishap,

although very rare, does occasionally occur, the cases being usually not recorded. It is unnecessary to say more under this heading, as it is obvious that, while present, this condition is an absolute bar to closure of the wound.

2. Obstruction of nervous origin, due to spasmodic contraction of the cords. This is rarely a sufficient cause in itself to prevent healing, but it is an important factor in conjunction with other conditions. It can, as a rule, be diagnosed by the relief obtained by the administration of chloroform, and also by the fact that the obstruction is often purely an inspiratory one.

(B) *Various Conditions in the Wound.*

1. If the larynx be injured in the operation the wound often gives great trouble in the course of healing.

2. Slight septic infection of the wound is a deterrent rather than an absolute bar to union.

3. The character of the tracheal opening may exercise an important influence on closure of the wound. Thus, if the upper end of the opening be not cleanly incised at the time of operation, it sometimes happens that a portion of the antero-lateral wall of the trachea is able to fall back and act as a flap valve, partly shutting off the larynx. Again, if the wound be not median, and the tracheal wall be weakened by inflammation, it occasionally happens that the anterior wall falls back on to the posterior wall from its own weight whenever inspiration occurs, constituting another variety of flap valve. Therefore the local condition of the wound should always be carefully inspected under a good light, so that such occurrences, if present, may be detected.

The following case, for which I am indebted to Dr. Wills for permission to record, is in many ways typical of the difficulties that may arise.

Sidney A—, aged 2, was admitted into hospital August the 22nd, 1902, with the usual signs of a severe case of laryngeal diphtheria, and with only sixteen hours' history of symptoms.

At the operation, which was performed on admission, the thyroid gland was found to reach quite to the cricoid cartilage, which was divided in the high tracheotomy. At the moment of incision the child vomited, and the thyroid cartilage was inadvertently cut through for its lower two thirds. The child was convulsed on coming round from the anæsthetic.

2nd day of disease.—Doing well. Pulse regular and strong. Heart's apex beat is internal to the left mid-clavicular line.

3rd.—Tube taken out at noon. The wound had to be dilated several times in the course of the day owing to bad asphyxial attacks, during which the child got rigid. Patient vomited once.

4th.—Membrane removed from trachea on two occasions.

5th.—At five this morning patient had a bad asphyxial attack and then collapsed; absent pulse, cessation of breathing, etc. Restored by usual means, after which oxygen had to be given continuously for a couple of hours. Tube reinserted for five hours. Heart's apex beat is now half an inch external to the mid-clavicular line and slapping in character. Much recession of lower chest-wall present all day; relieved by removing membrane with tracheal forceps.

6th.—Pulse frequent and irregular. Sweats greatly. Occasional vomiting. Has to be frequently feathered.

9th.—Much bronchitis. Occasional syncopal attacks.

10th.—Squints. Distension of abdomen (relieved by turpentine enema).

11th.—Food comes through tracheal wound.

13th.—Breathing worse; much recession.

14th.—Pulse, squint, and recession as above. So much distress present that rubber tube inserted, which gave relief.

18th.—Intubated, but tube coughed up in an hour's time.

19th.—Reintubated three times, but could not tolerate the tube, and severe vomiting occurred. General condition very bad, and much respiratory distress present.

21st.—Intubation again attempted, but child had a bad syncopal attack. Much cyanosis present all day.

23rd.—In night child nearly died in a bad asphyxial attack. Pulse extremely feeble for some hours after.

27th.—Colour still bad, and general condition about same.

28th.—Intubated; the rubber tracheotomy tube had to be left in with a hole cut in its convexity into which the intubation tube fitted. The necessity for this procedure seems to indicate that the intubation tube does not reach the obstruction.

29th.—Intubation tube ejected after twenty hours. Regurgitation of food present. Chloroform administered, and a Jacques catheter inserted through the nose nearly to the tracheal bifurcation. This caused difficulty in the expulsion of mucus, which was present in great quantity. Child nearly died twice by asphyxia, and after fourteen hours the tube was drawn up as far as lower part of larynx

and the bi-way rubber tube reinserted into the wound. Chloroform had to be given for several hours, both before and after the reinsertion of the tracheotomy tube.

31st.—Nasal tube, which had been left in for local effect in larynx, taken out. Child refuses thickened food, while thin liquids pour down its larynx. Nasal feeding avoided as long as possible on account of cardiac condition. Temperature 102° F.; more bronchitis; sleeps fairly.

47th.—General condition better. The discharge has been very blood-stained for a week, possibly owing to the rubber tube having been much shortened.

48th.—A full-length bi-way tube having had no effect in preventing the bleeding, an ordinary one-way rubber tube was inserted to-day.

51st.—Bleeding ceased; hence it was probably due to the irritation occasioned by the extra aperture in the tube.

52nd.—Under chloroform, Bond's metal cut-throat tube was inserted and tightly corked. Breathes fairly well. General condition much better.

53rd.—Food has been stopped for twenty hours as nasal feeding was thought undesirable, whilst mouth feeding would send food into lungs. Tube had to be readjusted under chloroform last night.

56th.—9 a.m., metal tube taken out and nasal catheter inserted as at first. Distress occurred in spite of continuous oxygen administration, and in two hours the tube was removed; the trachea had to be opened owing to almost complete collapse of the child. At noon, under chloroform, the edges of wound were pared and completely sewn up. Breathes very badly except under chloroform, probably owing to fright and consequent glottic spasm, so that at 4 p.m. three of the five stitches had to be removed. Wound covered with Leslie's strapping.

57th.—Chloroform and oxygen had to be given last night till 2 a.m., when child quieted and slept. Five more stitches inserted without chloroform, and this time child breathes well through nose.

58th.—Three stitches had cut through, and were reinserted.

59th.—Wound very inflamed, so that hot, wet boracic compresses were ordered, to be changed hourly.

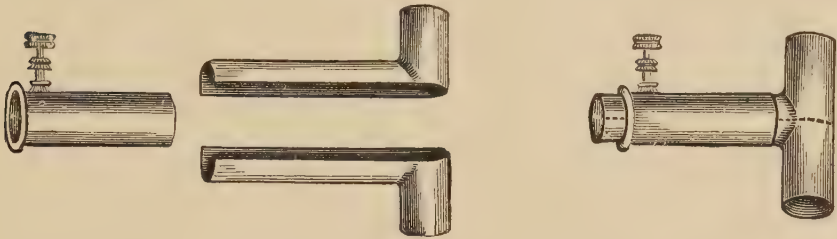
61st.—All stitches removed owing to condition of wound.

68th.—Wound healthier and shrinking.

73rd.—Wound absolutely impervious and soundly healed. The scar is puckered and adherent to the trachea, from which it can, if necessary, be freed in a few months' time. General condition of child excellent. Child speaks now and then.

This case illustrates, I think, more especially the necessity for trying as many expedients as possible to get the child to breathe through the larynx, and it shows how justifiable it is to run the gravest risks in order to avoid a permanent sinus. If this be not done, one will in many cases fail in securing closure of the wound.

An interesting point about the case was the fact that the dyspnœa was always inspiratory; one was always struck throughout by the ease with which the child could expire through the larynx, while, on attempting to inspire, the anterior tracheal wall seemed to fall back and completely close the airway. That the obstruction was not in the larynx was also shown by the fact that the child could not inspire through the intubation tube (*vide* 28th day). A special feature in the treatment of the case was the use of a small Bond's tube. The success of the instrument was marked, and, as I have



Bond's T-shape tracheal tube for introduction into the trachea in separate halves. Intended for use in cases of obstruction after transverse wound of the trachea. From a block supplied by Messrs. Down Bros.

not heard of its application in similar cases, such a use seems to me to be worthy of record.

The main lines on which treatment of tracheotomy wounds should be based are the following:

1. Keep the wound as aseptic as is possible. It should be always covered with a double layer of aseptic gauze, which can be conveniently fastened at one corner to the sternum either by a spot of collodion or by a strip of Unna's zinc strapping. This is easily changed as frequently as is necessary. It undoubtedly conduces to cleanliness of the wound and general comfort if the clothing be cut well away in a *décolleté* fashion, and made to open back and front. This obviates the usual crumpling of the garment over the neck and wound when the chest is being examined. It is unnecessary to advocate the sterilisation of all instruments and mops involved, this being, of course, an essential.

2. The tube should be removed at as early a date as possible,

more especially if any of the laryngeal cartilages be injured. One can usually take out the silver tube after twenty-four hours, and if another tube be required later on for a few hours more, a rubber one should be inserted.

3. Every effort should be made to calm and reassure the child, and in some cases the administration of Bromide of Potassium is of use in very excitable children.

4. The only contra-indication to the use of heroic measures if the wound does not spontaneously close is a poisoned and dilated heart; when this is present, as it was in the above case, one has to be very careful and proceed at intervals.

HERPES ZOSTER ASSOCIATED WITH GENERALISED BULLOUS ERUPTION FROM PROLONGED ADMINISTRATION OF ARSENIC.

By JAMES H. SEQUEIRA, M.D.Lond., M.R.C.P.Lond., F.R.C.S.Eng.,
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SINCE Mr. Hutchinson's classical observation that herpes zoster is occasionally caused by the prolonged administration of arsenic, many cases have been recorded, and it is only the unusual association of a generalised bullous eruption with the zoster which leads me to describe in some detail the present case.

Beatrice K—, a healthy, well-grown girl, aged 5, was brought to the London Hospital in the summer of 1902 suffering from psoriasis. The eruption had first been noticed on the back, chest, and abdomen in February. A little later the scalp was involved, and in March the arms and legs were affected. This primary development of psoriasis on the trunk and the later extension to the extremities in the first attack is not unusual in young subjects, as has been pointed out by Colcott Fox. The eruption was everywhere of the guttate type. The spots were small and circular, and covered with characteristic scales. Three minims of Fowler's solution in water were prescribed three times a day, and the spots were locally treated, after removal of scales, with an ointment of ichthyol and salicylic acid. The patient lived in the country and was only seen at long intervals, but the treatment was not intermitted. About three months after the treatment commenced, the mother states that she noticed that the skin of the trunk was

darker than normal, but she attributed the change in colour to the ointment.

On October the 3rd, 1902—that is, about four months after the patient was first seen, and during which time she was known to have been taking arsenic (though it is possible that the drug had been administered some time before),—the child was brought up to the hospital with a crop of vesicles and bullæ all over the trunk. The lesions varied in size from a pin's head to 5 mm. in diameter. They were rounded, tense, and contained a clear fluid, and there was a narrow zone of hyperæmia round each. On the loin, hip, and the upper part of the thigh, and the anterior aspect of the lower part of the abdomen on the right side, there was a copious eruption of herpes zoster, corresponding with Head's first lumbar area. The skin of the trunk was also pigmented. The colour was a pale yellowish brown, with the peculiar dappled appearance of arsenical pigmentation. The psoriasis had almost disappeared. The face and extremities were entirely free from vesicles, and the pigmentation was limited to the parts covered by clothing. The skin of the palms and soles was free from hyperkeratosis, which is a common phenomenon in chronic arsenical poisoning. There was no paralysis and no wasting of muscles, and the knee-jerks and other reflexes were present. The child was in perfect health, and had at no time presented any signs of acute arsenical poisoning, such as catarrh of the eyes and nose, or gastritis.

The arsenic was stopped and the herpetic patch covered with a layer of cotton wool fastened with collodion, and the vesicular eruption was dressed with a simple, soothing ointment. All the lesions rapidly dried up, but the pigmentation persisted, and is only now (November, 1903) disappearing. The scars of the herpetic lesions persist, but there is no scarring in the site of the bullæ elsewhere. The psoriasis relapsed very soon, but is now improving under salicin in five-grain doses three times a day.

Urticarial, erythematous, bullous, and even ulcerative eruptions are recorded as following the administration of arsenic, while the occurrence of herpes zoster has been so often observed as to leave no doubt that it has an etiological significance. In an analysis, Neilsen found that of 557 cases of psoriasis treated with arsenic, herpes zoster occurred in 1·8 per cent. In 220 cases treated with iodide of potassium only, herpes appeared in only 0·4 per cent. Head and Campbell's pathological study of herpes zoster showed that the skin lesions are due to inflammatory changes in the posterior root-ganglia, similar in character to those found in the anterior horn-ganglia in anterior polio-

myelitis. The prolonged administration of arsenic is known to produce paralysis and wasting of muscles, and this form of peripheral neuritis, like that due to lead, is doubtless caused by the poisoning of the anterior horn-ganglion cells. That similar changes should occur in the posterior root-ganglion cells is also probable, though the presence of the arsenic may only be a determining factor.

The special point of interest in the present case is the co-existence of a generalised bullous and vesicular eruption with the herpes zoster, and in this connection it is of interest to note that it is not uncommon to see isolated vesicles on the skin at a distance from the herpetic area in cases of herpes zoster. Indeed, Tenneson says that such vesicles are to be found, if carefully looked for, in the majority of cases. These lesions are commonly found on the same side of the trunk. In the case now described they were so numerous and so widely diffused that I think that they can only be considered to be an evidence of the arsenical poisoning, and not "aberrant" vesicles of the herpes zoster. The fact that none of these vesicles left a scar, while the scars were numerous in the herpetic area, may be of some support in this direction. Cases of herpes zoster with a generalised herpetic eruption have been described, but not, I believe, in connection with chronic arsenical poisoning.

CURIOUS CONGENITAL CYSTS OF THE LUNG ASSOCIATED WITH DEXTROCARDIA CAUSED BY PRESURE FROM THE CYSTIC LUNG.*

By GEORGE CARPENTER, M.D.

ROSINA P—, aged five months, attended the out-patient department of the North Eastern Hospital on November the 16th, 1903. She had been ill a fortnight with "wheezing at the chest," but before that she was quite well. She was breast-fed. The first child was stillborn; the next died at five weeks old; the child following also died. The fourth and fifth were alive and well, the sixth had fits, the seventh was well, and the eighth was the patient.

On examination the child was pale, with a cyanotic tint, and there were signs of bronchitis.

The *cardiac impulse*, which was weak, was in the fifth interspace,

* Exhibited at The Society for the Study of Disease in Children, December the 11th, 1903.

half an inch outside the nipple line on the *right side*. The superficial *area of cardiac dulness* commenced at the fourth right costal cartilage. The spleen was one finger in front of the costal margin and the liver two fingers below the costal margin in the nipple line.

The infant was ordered a cough mixture and improved, but on

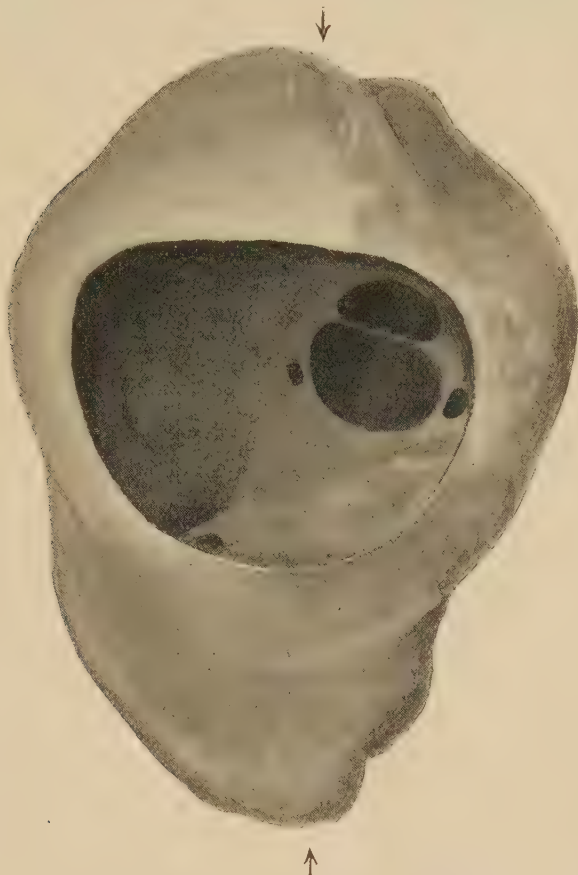


FIG. 1.—The lower lobe of the left lung, which has had a part of the cyst-wall removed so as to display the large cyst and perforations in it which lead into another and smaller cyst. The arrows denote the line of section which was subsequently made in this specimen and from one side of which Fig. 2 has been drawn.

November the 27th it was admitted into the hospital in a collapsed condition, with a temperature of 97° F. On its recovery from the collapse the temperature ran up to 103.5° F., the respirations were 84 to the minute, and the pulse-rate 144 to the minute. It became convulsed and died on the 29th.

At the post-mortem examination the heart was found as indicated during life. It was *not* rotated on its axis; it was thrust over bodily to the right side. Its valves and blood-vessels were normal. The right *lung* was broncho-pneumonic. The lower lobe of the left *lung* was slightly adherent to the chest, and it appeared to be converted into an airbag. The other organs were quite healthy.

The specimen was exhibited as it was removed from the body, so



FIG. 2.—Fig. 1 has been cut into two at the part shown by the arrows. Two large cysts and several small cysts, together with still smaller cysts, have been brought in view by this operation, and are here shown.

as not to destroy the naked eye appearance found at the autopsy. On further examination almost the whole of the lower lobe was found to be converted into a cyst the size of a small orange (Fig. 1). It contained nothing but air. It was divided into four or five secondary smaller cavities by septa which were perforated by circular apertures. The walls of the cyst were lined with a yellowish granular material, the naked eye appearance of which presented nothing very definite.

The bronchus traced down was found to enter a small area of comparatively unaffected lung. None of the divisions of the bronchi could be found to enter the cyst. Below the cyst was another portion of apparently healthy lung, which on being cut into was found to be composed of numerous small cysts of various sizes, some of which contained granular material, and some were empty (Fig. 2).

Had it been a single cyst one might have thought it a sequence of some destruction of the lung, but the presence of numerous cysts seems to suggest that the condition is more of the nature of congenital cysts, akin to those of the liver or the kidney.

The Society for the Study of Disease in Children.

A MEETING of this Society was held on February the 19th, 1904, at 11, Chandos Street, Cavendish Square, W., Mr. R. CLEMENT LUCAS in the chair.

A Case of Cerebral Diplegia with Changes in the Fundus Oculi was shown by Dr. ROBERT HUTCHISON. The child was seventeen months old. It was full time, the labour was easy, and there was no history of syphilis. All its limbs were flexed on the trunk, the muscles were spastic, and the deep reflexes were exaggerated. It was imbecile. The optic discs were atrophic, there was extensive choroido-retinitis, and diffuse opacities in the lenses. The condition was thought to be due to arrested development of the cortex cerebri, probably syphilitic.

A Case of Progressive Cerebral Degeneration of the Family Type was also shown by Dr. HUTCHISON. A boy, four years of age, was healthy until ten months old, when fits occurred on and off for some weeks. Two months ago he began to stagger when walking, and he next developed some spasticity of the legs with mental apathy. The optic discs were becoming atrophic. There was another child in the family who became affected in the same way and at the same age. There was no history of syphilis.

Mr. SYDNEY STEPHENSON thought the case belonged to a group which had been more or less worked out lately, one in which systemic symptoms were those of cerebral degeneration, which were correlated with fundus changes, the optic discs being pale but not necessarily atrophic. Smallness of the retinal vessels was also noticed, and fine pigmentary changes in the central region of the fundus. He had seen one case, the offspring of a consanguineous marriage.

Mr. JACKSON CLARKE thought the cases illustrated the importance of consultation with a physician before surgical treatment was undertaken in young children with general spasticity.

A Case of Symmetrical Bilateral Branchial Fistulæ with Symmetrical Bilateral Helical Fistulæ and Misshapen Aural Pinnæ was shown by Mr. J. HOWELL EVANS. In the cases recorded by Sir James Paget there was a very definite hereditary influence. There were other congenital deformities in members of the family in Mr. Evans's case.

Mr. MUMMERY did not agree with Mr. Evans that the fistulæ in the case were in the position of the fourth branchial cleft; he thought it was the third.

Mr. CLEMENT LUCAS said the cases showed the extreme hereditary tendency there was. He had seen closed fistulæ mistaken for glands in the neck owing to cyst formation.

Mr. EVANS, in reply, said it was the third cleft as usually reckoned, but he was inclined to view it differently.

A Portion of a Coin-catcher which had been Removed by Gastrotomy was shown by Mr. DONALD ARMOUR.

A Case of Vertical Monocular Nystagmus was shown by Mr. ARNOLD LAWSON. The affected eye showed a leucoma of the cornea due to an old perforating ulcer. Convergent strabismus was present, which had been relieved by tenotomy, and with a good effect on the nystagmus.

Dr. C. O. HAWTHORNE related the case of a child who had monocular nystagmus who was not blind in the eye. The nystagmus ceased when the pupil was dilated by atropine.

An Early Case of Friedreich's Disease was shown by Mr. JACKSON CLARKE. The boy, aged 4 years, had dropping of both feet, exaggerated knee-jerks, Babinski's sign, and the parents had noticed some weakness of the left hand. A brother of the child had rigidity of the lower limbs and wasting of the muscles of the thumb. Symptoms began in his case at six years. He advocated in the early stages light instrumental guidance, later tendon elongation and tenotomy followed by massage.

Dr. PORTER PARKINSON thought the case would have passed unsuspected had it not been for the fact of the family history.

A Case of Hæmatoma of the Parietal Bone was shown by Dr. GEORGE CARPENTER. The swelling was very hard and felt like bone and suggested an osteophyte. The lump dated from birth, when it was soft. Mr. Sale-Barker, who made skiagrams, did not think there were any bony elements in the tumour.

A Specimen of Secondary Angio-sarcoma of the Lung was shown by Dr. W. A. WILLS and Mr. DOUGLAS DREW. Mr. Drew removed the left testicle for sarcoma in April, 1902, and there was no recurrence, local or general, until December, 1903. It was thought to be a case of empyema when admitted, and a rib was resected, so sanguine were they that there was pus, but at the resection a new growth was discovered. At the post-mortem inspection it was thought to be a primary sarcoma of the lung, but subsequent inquiries negatived that idea, and the case illustrated how a fallacy might arise even after a very careful post-mortem examination. Mr. Douglas Drew reminded the Society that in the previous November he had exhibited the child as one of cure after removal of sarcoma of the testicle. On the last occasion he had seen the child Dr. Parkinson had found no evidence of

disease in the lungs. The primary growth was adeno-myxo-sarcoma. The lung tumour resembled the primary growth in part, but the rest of it was of the nature of angio-sarcoma or endothelioma.

Dr. PARKINSON thought that the growth started at the root of the lung, that it came to the surface comparatively late, and that was why there were not any physical signs.

Dr. WILLS, in reply, thought the growth had been extremely rapid at the last.

A Case of Anæsthesia and Recurrent Ulceration of the Gluteal Regions from Spina Bifida was shown by Dr. PARKES WEBER.

Mr. HOWELL EVANS looked upon such conditions as primarily traumatic.

Mr. DREW said that nutritional changes were frequently met with in cases of spina bifida.

A Case of Tuberculous Disease of the Lachrymal Sac was shown by Mr. SYDNEY STEPHENSON.

Mr. CLEMENT LUCAS asked whether it was a primary growth, or whether it had extended from the nostril.

Mr. STEPHENSON said it was clearly a secondary tuberculosis, since the lachrymal disease was noticed eighteen months after the tuberculous glands in the neck. There was no obvious evidence of tubercle of the nasal passages.

Microscopic Sections of the Kidney from a Case of General Œdema in an Infant were shown by Dr. GEORGE CARPENTER. The infant was breast fed. It was dropsical like a case of nephritis, and there was albuminuria, but no tube-casts. Post-mortem there were no inflammatory renal changes, but the kidneys could not be looked upon as absolutely normal in that they showed exudation between the glomeruli and their capsules and in the convoluted tubules, but there was a complete absence of catarrhal or interstitial changes. He considered the condition toxæmic, but the nature of the toxin was not obvious, nor indeed the cause of death.

Dr. PARKES WEBER thought the case was an example of what could be called toxæmic œdema and toxæmic albuminuria. Absence of nephritis in such cases might be due to personal peculiarity.

Microscopic Sections of the Heart and Kidney from a Case of Acute Œdema of the Lungs and Sudden Death were shown by Dr. GEORGE CARPENTER. The child came under observation clinically as a case of heart failure, and it was diagnosed during life as one of uncomplicated myocarditis. The urine was loaded with albumen, there were no patellar reflexes, and the soft palate was thought not to move freely. There was no history of diphtheria, but, taking the clinical findings into consideration, the condition was thought to be diphtheritic. Dr. Carpenter drew attention to his observations on uncomplicated myocarditis in children during the previous session, and recorded in the 'Reports' of the Society, and published in 'The Lancet' in 1903 and in 'Pediatrics' in 1896, and said that this case well illustrated the clinical conditions met with in those published cases which were diphtheritic and rheumatic. The child died suddenly the following day. The heart muscle showed well-marked degenerative changes. Contrary to the finding in one of his published cases, there were no interstitial changes in the present instance, and the condition was not inflamma-

tory. He thought observations should more frequently be directed to the microscopical examination of the cardiac muscle in all diseases than happened at present. Clinically, in his experience cases of weak cardiac action, and probably of toxæmic origin, were not uncommon, and he thought that such cases as he had called attention to would be more frequently discovered if looked for.

Dr. HUTCHISON said he agreed with Dr. Carpenter's view that the condition of the heart was due to the diphtheritic poison.

Dr. C. O. HAWTHORNE was disposed to agree with Dr. Carpenter. Cases of sudden syncope after diphtheria were of course well known. Dr. Carpenter's case in all probability afforded a demonstration of the manner in which these disasters were produced.

Dr. C. W. CHAPMAN narrated a case of post-diphtheritic rapid cardiac dilatation with syncope.

Dr. PARKES WEBER thought that Dr. Carpenter had hit upon the only possible explanation.

Mr. CLEMENT LUCAS thought the case showed that the condition might easily be overlooked. He called attention to an epidemic of slight sore throat in a surgical ward where the diphtheria bacillus was found in swabs taken from these throats, but the patients had no serious symptoms.

Dr. CARPENTER, in reply, said a girl of six under his care for cardiac failure, with a systolic apex-bruit, a dilated heart, and a pulsating liver and albuminuria, completely recovered in due course and before she developed paralysis of the soft palate, which occurred nearly a month after she was first seen, and thus clearly demonstrated the nature of the toxæmia, though at the time the cause of the heart failure was not obvious. On subsequent inquiry it was found that three weeks before her admission into hospital she had "patches in her throat," for which she received medical treatment.

A Paper on the Treatment of Hernia in Young Children was read by Mr. LOCKHART MUMMERY.

Mr. CLEMENT LUCAS alluded to the special difficulty in young children, that of isolating the vas deferens from the sac. There was a real danger of destruction in inexperienced hands.

Mr. MUMMERY, in reply, said it was precisely that difficulty referred to by Mr. Lucas to which he alluded.

The Organs from a Case of Hemi-hypertrophy were shown by Dr. ROBERT HUTCHISON. He was a healthy, well-developed child with three small capillary nævi in the skin. The left arm and leg were hypertrophied, and to some extent the trunk also. The asymmetry of the limbs was apparently due to an increase of the subcutaneous tissues of the left side, resembling a diffuse lipoma. He subsequently developed an empyema and died. The increased thickness of the left limbs was entirely owing to an increased deposit of subcutaneous fat. The bones were normal. Most of the paired organs were decidedly larger on the left side than on the right. The left lobe of the thymus was larger, but the two lobes of the thyroid were symmetrical. The liver contained some multiple angiomas. He thought the condition must date back to embryonic life, and be in consequence of unequal segmentation in the ovum.

Dr. HAWTHORNE alluded to a case of Dr. MacGregor's, of Glasgow, where the hypertrophy was limited to the lower limb. Post-mortem there was a tumour of the optic thalamus. In view of the relation between the enlarge-

ment of the pituitary body and the condition of acromegaly, Dr. MacGregor's case seemed of much importance.

Dr. PARKES WEBER said the case furnished an excellent example of the association of congenital general overgrowth of a portion of the body with angiomas in the skin, representing vascular overgrowth.

Dr. HUTCHISON, in reply, showed a giant finger which had been amputated, and also an enlarged supra-renal capsule on the same side, from the same patient.

Editorial.

LA GOUTTE DE LAIT.

In France philanthropic societies have long been in existence to encourage the poor to breast-feed their infants. In 1890 medical out-patient departments for nurslings were organized, which were associated later with the distribution of sterilized milk to the out-patients. In that year Professor Hergott founded at Nancy a maternity society to help mothers delivered at his clinic, and to encourage maternal breast-feeding. The infants had to be produced a month after their birth, they were weighed and examined, their weight was compared with that at their birth, and their mothers were given a gratuity, the amount depending upon the manner in which the infants had been cared for, and also according to the necessities of the family. In ten years close on a thousand pounds were distributed to a little over two thousand poor mothers.

In this charity originated the idea of the Goutte de Lait, and M. Budin, of Paris, organized in 1892, at the Charity Hospital, an out-patient department for nurslings, and associated with it the gratuitous distribution of sterilized milk, at the municipal expense, to mothers who could not nurse their infants. The principal aim, however, of the undertaking was to encourage and direct maternal breast-feeding. M. Budin's example was followed by other accoucheurs in Paris.

Some months later M. Variot, at the Belleville Dispensary, organized by private charity a distribution of commercially sterilized milk to the patients at a reduced price, viz. at 2½d. a quart in place of 6d.,

its trade value. This was attended by the most gratifying results. He found that infants who had reached the last stages of wasting were restored to health by these means.

In 1894 a special out-patient department was founded for nurslings at Fécamp by M. Dufour, which was supported by voluntary contributions. To this undertaking he gave the poetic name of Goutte de Lait. It was designed for the use of all classes, rich and poor alike. The distribution of milk was partly gratuitous and partly subsidized—those who could afford to pay for the milk helped to meet the cost of its gratuitous distribution.

In 1895 La Goutte de Lait, of the Belleville Dispensary, was permanently organized and the opportunity is afforded of reproducing the famous painting by Geoffroy, now the property of the City of Paris, which represents this charity in full working order; a great painter's tribute to a noble work. Since its organization and up to 1903 300,000 quarts of milk have been distributed to over 2000 infants.

The idea of the Goutte de Lait so happily conceived was cordially accepted by the doctors and the public, and similar institutions have rapidly multiplied in France. Thus there are twenty-five such in operation in Paris, and no less than sixty-five have been started in various parts of France. There is a considerable number in Europe and a few in other parts of the world.

Three essentials have been specified by the French medical authorities for the proper working of a Goutte de Lait—(1) the distribution of sterilized milk; (2) regular weighing of the infants; (3) medical supervision.

The importance of medical supervision is well recognised in France. Without it it is held that maternal nursing would become unfashionable with its attendant ills, and that mothers would suffer from the lack of medical advice. Apart from these objections the troubles which would follow the mal-administration of milk, however good that milk might be, are insisted upon.

The Paris accoucheurs who keep an eye upon the children born in their clinics distribute milk in small bottles, each one containing sufficient for a meal, which are packed in Soxhlet's baskets. They use the ordinary hospital milk fresh delivered in Paris and sterilized



THE PHILANTHROPIC SOCIETY OF THE GOUTTE DE LAIT OF BELLEVILLE.

PAINTED BY E. GEOFFROY.

[Exhibited in the Paris Salon, 1903, and now the property of the City of Paris.]

on arrival. According to Tarnier's statistics, quoted by Variot, 70 per cent. of the cases coming under the notice of the accoucheurs are breast-fed; 24 per cent. have mixed feeding; and only 6 per cent. are bottle-fed. The undertakings of the accoucheurs were designed merely for the use of their own patients.

In the Gouttes de Lait which are installed at all the Children's Dispensaries in the Paris suburbs the infants, on the contrary, are mostly bottle-fed. The preparation of a multitude of little bottles after Soxhlet's methods is thought to be too great an undertaking. At these institutions pint flasks of milk which arrive from Normandy and elsewhere commercially sterilized and hermetically sealed with paraffin corks are generally favoured by physicians. The proper quantity of milk for each feed according to the age and stomach capacity of the infant is obtained by the use of a properly graduated bottle.

In France it is customary to order whole milk at three or four months of age, but prior to that the admixture of a third or a fourth part of boiled water and a little sugar are deemed necessary. The addition of sugar of milk is not viewed with favour, and commercial humanized milk after Gaertner's plan and American percentage milk mixtures are disliked. It is thought by French physicians that these methods lower the nutritional value of the product and predispose the infants to scurvy. Simple milk mixtures appear to them to be the least injurious and the most efficacious in rearing young infants.

From Paris it is well to turn to the French provinces and witness the working of a provincial Goutte de Lait, that of Saint Pol-sur-Mer, near Dunkerque, under the guidance of M. Aussett, of the University of Lille. The mothers meet weekly on a Sunday in a large room for the purpose. Here they undress their babies. The infant is then wrapped in a blanket, weighed, and its weight is inscribed on a paper card, which is presented in an adjoining apartment to the physician in charge along with the patient. The case is examined, drugs are prescribed if necessary, and gratuitously. The appropriate number of bottles of pasteurized milk are then ordered. The milk is distributed daily at the premises of the society. Each infant has a double supply of bottles in two baskets which are personal to it. On the mother's arrival at the dépôt the

full bottles are exchanged for the empty ones—gratuitously to those who cannot afford to pay for them. To the rich the milk is sold. Children are assisted from birth up to fifteen months old. The milk arrives at the Goutte de Lait in locked cans from the dairy farm, and is pasteurized by Contant's method immediately on its arrival. The little bottles of pasteurized milk are then plunged into troughs filled with cold water, where they remain until the arrival of the mothers, who are instructed to treat them in a similar way on their arrival at home, and keep them there until they are required. The monthly nurse of the place assists while out-patients are being seen by the doctor, and she pays frequent surprise visits to the homes of the patients who are under treatment. M. Ausset prefers pasteurization on the ground that sterilization renders the milk indigestible, decreases its nutritive properties, and weakens its coagulability by reason of the precipitation of the soluble phosphates along with other well-known chemical arguments. He adduces an important clinical argument in favour of pasteurization, and that is that with this method he can feed infants from the first on whole milk and with good results, whereas with sterilization he found it necessary to dilute the milk up to the fourth month of age. Under the auspices of the Goutte de Lait the town infantile mortality rate was 20·9 per cent. for 1902-3, whereas the average for the five years previous was 28·8 per cent. During the former period the infantile death-rate for the Goutte de Lait was 6·7 per cent.

France, faced by a decreasing birth-rate and a high mortality infantile rate, was in danger of extinction. To increase the birth-rate was not feasible, but a reduction in the number of infantile deaths was found well within the powers of preventive medicine, and the advent of the Gouttes de Lait have for the time being solved this social problem. What can be done in France can well be accomplished in England. The superiority of pasteurization over sterilization is being recognised in some quarters in that country, but what apparently has not received sufficient attention is the necessity for cleanliness—given a clean milk their mortality would no doubt be still further reduced. A healthy life for the milch cows, the exclusion of those that are tuberculous, a suitable food supply, a proper domicile for the animals, and cleanliness in all that appertains

to them and their product are of great importance. It is futile to hope for cleanliness from those who have been trained to filthy methods, and the milkmen of the future must be properly educated. In our last issue we advocated the formation of Milk Dispensaries at our children's hospitals. These charities could undertake the functions of the Gouttes de Lait of France in their own districts, and they are the suitable authorities in whose charge such undertakings could well be placed, seeing that their physicians are trained experts in the treatment of infantile disorders and in the ordering of infantile dietaries. The thrusting of municipal authorities into the breech as infant food purveyors and prescribers cannot be recommended. The extinction of one form of quackery—the proprietary infant food—and its replacement by another and equally objectionable variety, the municipal infant food, is not in the interests of the people for whose benefit it has been devised, and municipalities are no more qualified to preside over infantile dietetics and infantile bowel complaints, which cannot be dissociated, than are the proprietary food vendors. The municipal milk dole *divorced from medical guidance*, as is now being tried in Battersea and Liverpool, is not a system of relief that can be recommended. Infants cannot be fed with mathematical precision; so much the age and size of the child so much the stock milk mixture required is not unfortunately the correct solution of the dietetic problem. Many of the children have digestive peculiarities which have to be studied by those who would rear them successfully, and successful rearing, after all, is the aim of all such praiseworthy enterprises. There is yet another serious drawback to the injudicious distribution of municipal milk, the encouragement that will be given to mothers to abandon breast feeding, a most serious loss to nurslings. Municipal milk should, therefore, if the plan is to receive the sanction of medical experts, be prescribed by medical men, the only right and safe way of distributing it.

Medical supervision could be obtained in one or two ways. One way would be the dispensing of milk on presentation of a doctor's prescription at the dépôt so that children would then remain under the care of their own medical men. Another would be to place the various municipal milk dépôts under expert medical superintendence

as in the French Goutte de Lait system. Or a combination of these plans might be adopted.

Where there are but few children's hospitals milk dispensaries would be a necessity, and even in London, with its various children's hospitals as adjuncts, additional milk dispensaries would have to be provided to meet the demand and cover the ground.

The advantages to be derived from the promotion of milk dispensaries under municipal control would be that there would be no lack of funds, that every ratepayer would contribute his share of the cost of their maintenance, and that an unlimited number of infants could be reared under the direction of the prescribers.

The sanitary authorities have a great work to their hands if they will but turn their attention to a fruitful field of enterprise. Let them concentrate their energies on the production of a clean milk, the lack of which is at the root of many infantile evils, of much suffering, and numerous infantile deaths. Sanitary authorities at the present time are not empowered to raise the standard of cleanliness which is now at a disgustingly low level. Chemical additions and abstractions can be guarded against by the fear of detection and punishment; the pollution of milk by pathogenic germs can be controlled, but the production, collection, and distribution of milk under the most unwholesome and insanitary auspices are out of range of the weapons of the sanitary authorities. It is these weapons, to be directed against death and disease that now lurk in the family milkjug, which it is so desirable to strengthen. Sanitary authorities must not only aim at ensuring cleanliness of methods of milk production, but means must be devised to prevent contamination and decomposition during transit by road and rail and at the milk shops. The carriage of milk in sealed pint bottles, as adopted in Paris by the Gallia Company, would be a great safeguard with which might be associated the adoption of special refrigerator vans for milk transit. The milk shop in such a case might be fitted with troughs for iced water, as in the Gouttes de Lait, in which the bottles would be deposited on their arrival. For retail distribution printed labels of instructions as to the preservation of the article could be affixed to the bottles on delivery to the customer. There can be no doubt that sterilization

and pasteurization, in addition to the numerous drawbacks incidental to their use, produce scurvy in infants fed on milk so treated. There are numerous cases on record of the disease being produced by these methods which have been devised to retard otherwise rapid decomposition in an animal product which it is the custom to collect and distribute without proper regard being shown to cleanliness. It is questionable whether these processes are in the least necessary if the problem of how to obtain and distribute a pure milk be solved by the sanitary authorities. Sterilization and pasteurization—the latter method is the better of the two—have certain advantages under existing conditions, but their disadvantages are so numerous that wherever possible they should be discouraged. Municipal sterilised and humanised milk may be looked upon as especially deadly in addition to its other drawbacks which have been already commented upon.

The adoption of the French system of the *Goutte de Lait* in this country under expert medical guidance, coupled with the distribution of milk of approved cleanliness, would prove of immense service to our infantile population and to our future national physique. The urgent necessity for the formation of such charities in our midst is well worthy the serious attention of philanthropists who are in search of a good work. Given the necessary funds a beginning could be made by providing our children's hospitals with milk dispensaries, the need for which they now feel so acutely. It is an open secret that the North-Eastern Hospital for Children, London, a pioneer institution, is desirous of at once inaugurating a milk dispensary, and lack of funds is the sole deterrent. The wealthy philanthropist would experience a difficulty in finding a nobler work to his hand or a more worthy charity at which to initiate the scheme. Other equally deserving institutions are doubtless of the same mind, but in a similar impecunious plight.

The commanding intellect is given to but few men to raise during life a monument in stone to their memory like that of St. Paul's Cathedral, but the opportunity is afforded to a multitude of persons, more wealthy though less mentally endowed than its famous architect, of raising to themselves an enduring sentient monument in healthy flesh and blood, and, to use Sir Christopher Wren's apt reply, made to an enquirer who while being personally conducted over the

edifice drew attention to a supposed omission, "*Si monumentum requiris circumspice.*"

Excerpta Puerilia.

The Ambidextral Culture Society.—At a meeting of the above society, held at the Medical Society's Rooms, on March the 16th, the secretary of the society, Mr. Jackson, read a paper on "The Physiology of Simultaneous Ambidextral Work." There was an attendance of over seventy, a noteworthy feature being the large preponderance of the fair sex.

After reminding us of the great importance of the hands as the chief medium we possess in "crystallizing human thought into visible speech, and human conception into palpable realities," the lecturer proceeded to develop his position; this, briefly stated, appears to be that each half of the brain is capable of independent *and simultaneous* action; so that, were we to habitually cultivate equal and simultaneous use of our two hands, we should develop our brain to a far greater extent than is now the case. In fact, we neglect almost half of our opportunity for development. The lecturer quoted some interesting observations from the lives of individuals so far apart as Sir Edwin Landseer and Paul Cinquevalli, to show the really remarkable extent to which ambidexterity—an incongruous term, by the way—can be cultivated. Passing on to the question of the psychological explanation of the underlying processes, Mr. Jackson was on less safe and avowedly unfamiliar ground. If he is interested, however, in pursuing this aspect of the subject, he will find a careful *résumé* by M. Paulhan, in the 'Revue Scientifique' for 1887.

At the conclusion of the address, Miss Daisy Jackson, whose simultaneously written letters are already widely quoted, with four schoolgirls, gave an astonishingly excellent exhibition of the rapidity with which the art can be attained, their evident enthusiasm being clearly a potent factor in the results.

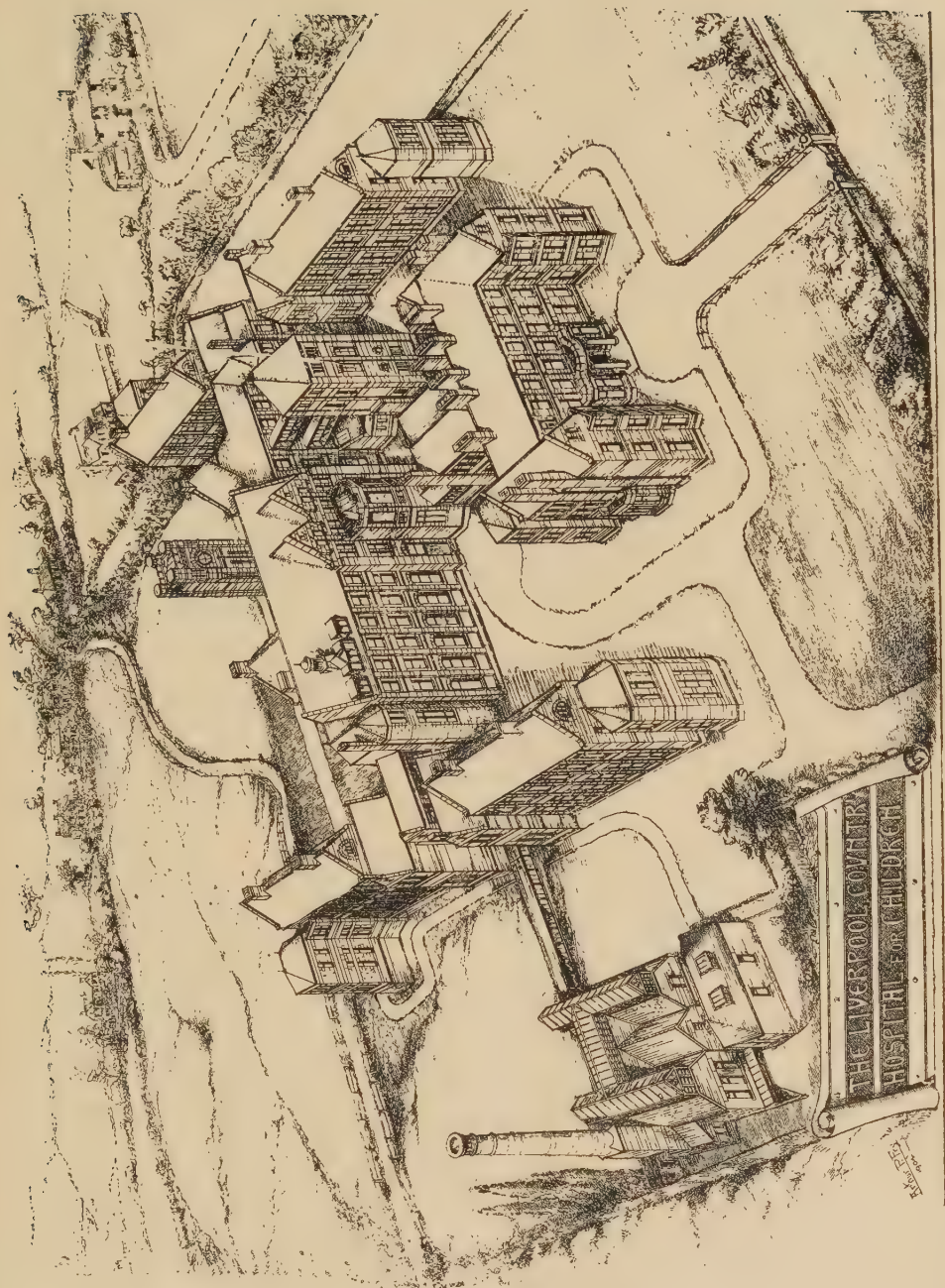
From a medical point of view it must be recognised that, however much we may sympathise with the society's endeavours to increase the effectiveness of the individual by means of manudexterity, such efforts have very definite limitations. It is clear that such demonstrations of simultaneous work as the blackboard writing of the above-mentioned young ladies, and the often quoted manipulations of

pianists, weavers and other craftsmen, are attained more by the increased prominence given to the process of automatism than by any additional exercise of the highest intellectual faculties. To a certain extent this is a valuable adjunct to the fulfilling of our daily tasks, but we cannot agree that such cultivation, as such, has any educative effect on the cerebral cortex.

Annual meeting of the Liverpool Country Hospital for Children.

—The fifth annual meeting of the Liverpool Country Hospital for Children was held at the Town Hall on the 15th ultimo, the Lord Mayor (Mr. R. A. Hampson) presiding and being accompanied by the Lady Mayoress. The report shows that £27,773 has been collected towards the amount required to enable the committee to proceed with the new buildings, of which we show a bird's-eye view. It is not proposed to build the entire hospital at first, but to provide an administrative block which will be adequate for the completed buildings, thereby preventing the difficulties which have so frequently been encountered in institutions which have required extension. The Lord Mayor having referred to the eminently satisfactory report, which, as he said, dealt with a peculiarly beautiful form of charity, commended the action of an anonymous donor of £3000, who had given this sum subject to the condition that no building should be commenced until £30,000 had been collected, and that £10,000 should be set aside for endowment purposes. The Chairman (Lieut.-Col. Montgomery, V.D.) and the whole committee are to be congratulated for the way in which they have by individual effort influenced many people to contribute to the funds of the institution and to become interested in many other ways, and the Chairman of the Building Committee (Mr. Andrew Gibson) merits the sincerest thanks of all concerned for the endless time, thought, and energy which he has bestowed upon the plans in conjunction with Mr. A. P. Fry, the architect, who has designed an excellent hospital in which every provision has been made for the treatment of the patients and for the accommodation of an adequate staff.

Distribution of sterilized humanized milk by the Liverpool Corporation.—Dr. Hope, the Medical Officer of Health for Liverpool, read an interesting paper at the Liverpool Medical Institution on the 17th of March, in which he detailed the work which is being done by the Corporation of Liverpool in the preparation and distribution of humanized sterilized milk for the use of infants whose mothers are unable to suckle them. Having given an account of the sources from which the milk is derived and of the means which are taken



to ensure its purity and freshness, he proceeded to recite the methods which are adopted for keeping records of the cases as to the effects upon the health of the children, and it was made clear that in over 50 per cent. of those for whom help was sought at the dépôts the children were ill, and that this sterilized milk was being tried as a last resource. A large number of the infants had been recommended to try the milk by medical attendants both in hospital and private practice, and the results on the whole had been excellent. Fortnightly weighings are carried out, and altogether the system has been very carefully organised. The milk is prepared in several strengths, suited for children of from one to two weeks, two to eight weeks, two to three months, three to five months, five to seven months, and over seven months, the milk being supplied in bottles, each containing a sufficient amount for one feeding. Dr. Hope pointed out that without attempting to draw too close deductions, the fact stands out that out of 4453 infants coming promiscuously to the dépôts, at varied ages and in conditions of health below the average, the mortality was 78 per 1000, as against 159 per 1000 for the whole city, and 88 to 118 for the best districts, and 212 to 215 for the worst; but that it must be remembered that in the 159 per 1000 for the whole city, and 88 to 118 for the best districts, and 212 to 215 for the worst districts, are included also breast-fed infants; clearly, if breast-fed infants were excluded and artificially fed infants only taken into account, the rate of mortality amongst them would be enormously higher, and would show even more forcibly the advantages of the sterilized food, which, of course, is an artificial food, over other methods of artificial feeding.

Dr. Hope pointed out the value of these figures, which he considered to be clearly and strongly in favour of persevering with the supply of this milk. But that the figures are by no means the only evidences of the value of the milk; there being the evidence of parents, of medical men, and of personal observation, all strongly pointing to instances repeated over and over again, in which to the use of the milk has been attributed the saving of the child's life. The question appears to narrow itself down to—What would these infants be fed on if they did not get this milk?

“Penny-dreadfuls.”—The ‘Daily Chronicle’ has an article upon boys’ “dreadfuls” and their effect upon their character. It remarks that two or three weeks ago, in a West London police-court, a boy of fourteen appeared who had been arrested for searching for a secret

cavern which some tale had led him to believe existed in Holland Park. In Edinburgh also recently a band of boy burglars established their den in an unoccupied house at Portobello, and equipped themselves with lanterns, tools, and other implements which they had stolen from other dwellings. A few years ago, also, we remember hearing of two or three boys who started from London on a buccaneering expedition in a leaky boat, with an old blunderbuss, a loaf or two, and other provisions. They succeeded, apparently, in reaching some spot below Gravesend, where the Thames police or similar water guardians became interested in their doings and arranged for their transference home again. The general purport of the penny-dreadful is to glorify in extravagant language deeds of prowess in which blood must "spout like water from a fountain." If in the old days of chivalry the exaltation of valour into the highest place amongst the virtues could make so fine a character as the Black Prince deaf to imploring cries for mercy from women and children about to die in the Sack of Limoges, while he was not insensitive to the skill and bravery of French knights fighting for their lives, and commanded that to them quarter should be given, it is easy to understand how easily a youthful mind can become unbalanced by a foolish presentation of the importance of physical strength and skill associated with a disregard for human life. This sort of thing, says the 'Daily Chronicle,' is depraving to the healthy and most pernicious to the weak mind. Boys, naturally thoughtless and unreasoning, gain false views of life from the reading of such trash. If it be true that an increasing tendency to brutality, and even homicide, is displayed by the youth of to-day, it is right to inquire how far it may be due to the perusal of the "dreadfuls" now so widely circulated.

The "penny-dreadfuls" no doubt stimulate the imagination of boys in unhealthy channels, but it has always seemed to us that the advertisement placards of second-rate theatrical performances must have an equally baneful influence. How many times such placards may have suggested the idea of murder to a mind brooding over some ill none of us can tell.

Herbert Spencer and vaccination.—A writer to a Scotch paper sends a quotation from Herbert Spencer upon vaccination which is interesting as an illustration of illogical reasoning by a great thinker. The following is the quotation :

"It is held that the immunity produced by vaccination implies some change in the components of the body—a necessary assumption.

But if the substances composing the body, solid or liquid or both, have been so modified as to leave them no longer liable to smallpox, is the modification otherwise inoperative? Will anyone dare to say it produces no further effect than that of shielding the patient from a particular disease? You cannot change the constitution in relation to an invading agent, and leave it unchanged in regard to all other invading agents. What must the change be?"

After dealing at length with the various diseases engendered, he continues—

"May it not be thus with another skin disease—that which vaccination gives? If so, we have an explanation of the frightful degeneracy of teeth among young people in recent times; and we need not wonder at the prevalence of weak and defective eyes among them. Be these suggestions true or not, one thing is certain—the assumption that vaccination changes the constitution in relation to smallpox and does not otherwise change is sheer folly."

It will be noticed that Mr. Spencer first assumes that smallpox is primarily a skin disease. This, of course, is want of knowledge rather than want of reason. Assuming, however, that smallpox is primarily a skin disease, he naturally concludes that vaccinia is also. And having satisfied himself upon such a point, he considers that decay of the teeth and defective eyesight may both be consequences of this acquired skin disease. Thinker as he was, although not learned in medical knowledge, a little reflection should have told him that, as far as the skin at least is concerned, the manifestation of the effects of vaccination are, under ordinary circumstances, extremely brief; while that of decay of the teeth is progressive. There is no more reason why vaccination should lead to decay of the teeth than it should produce premature loss of colour in the hair. Besides, in measles and scarlet fever the affection of the skin is more general than occurs as a result of vaccination, and nearly as many children suffer from one or other of these diseases or both as are vaccinated. Why should not, therefore, diseases of the teeth and eyes be put down to these diseases? While, however, we consider the idea of Herbert Spencer on this subject absurd, we believe that suppurative eczema does sometimes follow vaccination for the simple reason that pus-forming organisms may set up the disease in any child. Pus from the vaccinated area becomes transferred to other parts of the body, and impetigo is set up. The skin disease, however, is no evidence of weakened resistance on the part of the child, unless it be a passing loss of power to withstand attacks produced by a lowering of general tone while the child is suffering from the immediate effects of the vaccination.

Abstracts from Current Literature.

Medicine.

Scurvy as a cause of hæmaturia (*'Bristol Medico-Chirurgical Journal,'* December, 1903).—**Shingleton Smith** calls attention to scurvy as a cause of hæmaturia in the infant and in old age. Both of his patients were fed on sterilized milk and proprietary foods, and in both patients the hæmorrhage rapidly subsided on the administration of an antiscorbutic diet. In the infant hæmaturia was associated with scorbutic paresis of the lower extremities, and subsequently spongy gums developed, and it was not until then that the nature of the ailment was recognised. Dr. Smith remarks that the case shows that the hæmaturia may be almost the only manifestation of scurvy in the infant. That hæmaturia is not infrequent in infants and children as a manifestation of scurvy, and may be the sole manifestation, is well illustrated by the 'Reports of the Society for the Study of Disease in Children.' In vol. i (1900—1901) Dr. George Carpenter, in the discussion on a case of paroxysmal albuminuria and hæmoglobinuria shown by Mr. D'Arcy Power, expressed the opinion that cases of hæmaturia in children were not infrequently scorbutic, and the case shown subsequently developed typical scurvy. He again alludes to this condition when narrating a case of scurvy in a rickety boy of 5½ years. In vol. ii (1901—1902) there is an account of a case of hæmaturia in a female infant of 8 months, shown by Dr. Campbell Pope, who was thought to have a stone in the bladder, and was sounded when seven months old. Epistaxis was the first sign in the case, and subsequently she developed pain in the leg. When seen a month after the sounding she had developed hæmaturia and subperiosteal hæmorrhages of both legs and one thigh, and spongy gums. She had been fed on sterilized humanized milk. In vol. iii (1902—1903) Dr. George Carpenter showed a case of scorbutic hæmaturia in a child of 7 months who had been fed on a malted food and a Swiss milk. She was paretic, but there were no periosteal hæmorrhages. The gums were spongy and the child was anæmic and rickety, and he again called attention to the fact that scorbutic children were not necessarily rickety or anæmic. He brought the case before the Society because it illustrated what he took to be an important point, which was not generally recognised, viz., the fact that hæmaturia in infants and children usually denoted scurvy, and moreover was not infrequently the ONLY sign of that disorder. Dr. G. A. Sutherland, in the discussion that followed, spoke of the frequency of hæmaturia in infants as a scorbutic manifestation, and instanced an autopsy where an extravasation of blood was found in the bladder of a scorbutic infant, and suggested on that finding that vesical as well as renal hæmorrhage might occur in scurvy in infants.

THEODORE FISHER.

Cases of infantile scurvy (*'Bristol Medico-Chirurgical Journal,'* December, 1903).—**Bertram Rogers** expresses the opinion that cases "are not frequently seen at the large institutions in Bristol," and narrates the case of a rickety infant of 9 months old who had been fed on sterilized milk and a proprietary food. He had proptosis from hæmorrhage into the orbit, the gums were soft and hæmorrhagic, the femora were enlarged with fusi-

form swellings, and there was a similar swelling on one arm. The whole body was covered with sudamina. The child improved rapidly with fresh milk and orange juice daily. The proprietary food was stopped. He had one or two relapses while under treatment. In the same number Dr. Christopher Elliot narrates another case of infantile scurvy, and states that "cases of the above kind are by no means common," and thinks them "for this reason alone worthy of being put on record." The infant was eight months old. Both thighs were affected. The child was not rickety, but was very ill and anæmic. She had been brought up entirely on a proprietary food. She recovered under a change of diet and some fresh lemon juice. He had also been present at a post-mortem in a fatal case. The lower extremities were affected, and there was not only subperiosteal hæmorrhage, but there was infiltration of blood into the cancellous tissue of the long bones as well as into the soft parts surrounding them.

THEODORE FISHER.

Observations on renal retinitis (*Royal London Ophthalmic Hospital Reports*, vol. xv, part iv).—**E. Nettleship**, in his paper, which deals exhaustively with the subject, calls attention to the need of more information as to cases of juvenile renal retinitis. Under this section he narrates the case of a girl of 11 years who had "double neuro-retinitis suggestive of renal disease;" a trace of albumen in a urine of sp. gr. 1010; there was no post-mortem. In a boy aged 16 years there was polyuria at sixteen months old and scarlet fever at seven years. When under care the urine was of sp. gr. 1010, of normal quantity, contained much albumen, but was free from casts. He had diffuse neuro-retinitis. One kidney was absent, the other small and cystic without visible healthy structure. The aortic valves were diseased and the heart dilated. The parietal bones were "thick and heavy." A girl of 12 years had severe neuro-retinitis and a cloud of albumen in the urine. The left ventricle was hypertrophied. She had scarlet fever at the age of four years and died when fifteen years old of advanced phthisis. Post mortem the kidneys were granular, the lungs and intestines tuberculous, and amyloid reactions were obtained in the viscera. A female aged 8 years was taken ill at five and a half years old with failure of sight, and was said to have had "Bright's disease" by an ophthalmic surgeon who examined her at the time. Her urine was of sp. gr. 1010 and contained a cloud of albumen. The optic discs were very white, the veins showed thick white lines, and shining white spots were noticed at the yellow spot. The radial artery was "too hard" and the heart hypertrophied. At the age of thirteen years the urine was of sp. gr. 1010 and contained no albumen when examined on a single occasion. She is now grown up and about twenty-five years old. Dr. George Carpenter, at the meeting of the British Medical Association at Swansea in 1903, in the discussion on Mr. Nettleship's paper, when narrating his experiences of neuro-retinitis in children both with interstitial and parenchymatous nephritis, said that condition would be found more frequently if routine examinations of the fundi were made in such cases, and that evidence was accumulating in favour of the former being often due to hereditary syphilis. Mr. Hartridge also mentioned a case of renal retinitis in a boy of 12 years under his care who was probably the subject of inherited syphilis. The writer draws attention to hyaline thickening of the retinal arteries, indicated by intensification of the bright streak, and to compression of the veins when crossing degenerate arteries, and to the unequal distribution of

these changes throughout the fundus. If there be decided hyaline thickening of the retinal arteries, granular kidney disease may be suspected, and it is well, therefore, to look for the appearance of such arterial disease by routine in young subjects.

THEODORE FISHER.

The albuminuria of adolescence ('*Prager med. Wochenschrift*, vol. XXIX, Nos. 1—3).—**Alfred Pribram** divides the views of various writers upon this subject into two great groups. In the first of these stress is laid mainly upon the intermittent, or at least cyclic, occurrence of the albuminuria. The second restricts the definition of albuminuria of adolescence to cases of a certain age, presenting a definite clinical picture, and characterised by the occurrence of postural or (as the writer prefers to term it) orthotic albuminuria. The first group necessarily includes not alone cases in which the urine is free from tube-casts, but also those in which casts are a well-marked feature, and whose subsequent course may prove them to be akin to, if not identical with, true nephritis. In such cases the existence of structural alterations in the kidneys must always be suspected. The second group includes only those cases in which the urine shows at most an occasional hyaline tube-cast, and in which there exists a definite relationship between the erect posture of the body and the appearance of albumen in the urine. In these cases the possibility of gross structural changes in the kidneys is precluded. The writer ranges himself on the side of those who belong to the second group of observers, and prefers the term of albuminuria of puberty instead of that of albuminuria of adolescence. Whilst admitting that in the majority of cases an intermittent albuminuria is the sequel to, or the precursor of, true nephritis, he claims that there is a group of cases in which no such connection exists. He has observed for many years or months a number of such cases in which he has never found even a solitary hyaline cast in the urine. After the albuminuria has ceased the patients have continued healthy so far as their renal functions are concerned, and have subsequently passed safely through pregnancies, attacks of scarlet fever, and other conditions which are liable to be complicated by nephritis. The condition occurs in children and very young adults, *i. e.*, at the period of most rapid growth. The subjects frequently belong to neurotic families, and several members of a family are occasionally affected. Clinically the disease is characterised by pallor and feelings of apathy and languor. Mere changes from the recumbent to the erect posture may produce in these cases albuminuria, which subsides when the recumbent attitude is resumed. During an attack the urine contains albumen in a form that can be readily precipitated by the potassium ferrocyanide and acetic acid test; the specific gravity of the urine is raised; there is an increase in quantity of urea and alkalies, and occasionally of the uric acid. In discussing the various theories in regard to the pathology of this curious condition, the writer leans to the explanation of Schaps and Lommel, who maintain that the albuminuria of adolescence depends upon alterations occurring at this period in the ratio of growth of the cardio-vascular system to that of the body generally. He himself believes that it depends in some way upon the increased rate of growth at this time of the bone-marrow, and points to the analogy of the occurrence of the Bence-Jones proteid in some diseases of the bones. The prognosis is very favourable in those cases in which no tube-casts are found, and in which the albumen disappears on resuming the recumbent position, especially if the urine during an attack has a high specific gravity. The treatment consists mainly of rest in bed for two to four weeks until the albuminuria has

subsided. The patient is then put through graduated movements, but should at no time indulge in violent exercises. The diet need not be restricted, but alcohol must be entirely prohibited. As regards medicinal treatment, iron preparations may be administered, but arsenic should be withheld on account of possible irritative action upon the kidneys. After recovery has taken place the patient should avoid sea bathing or cold-water baths.

E. P. BAUMANN.

Nephritis in new-born and young infants ('*Rivist. di Clin. Pedriat.*,' 1903, p. 510).—E. Mensi has observed seventeen cases, aged 10 to 40 days. The urine, obtained by catheterisation, showed the presence of albumen, epithelial and hyaline casts. He states that the most frequent cause is broncho-pneumonia, which was present in fourteen cases. The lesions, which are tubular, specially affect the epithelium of the cortical substance, rarely the vascular or glomerular elements. There was no exact or constant correspondence between the renal lesion and the clinical symptoms. In addition to disturbance of circulation and enervation, six of the cases had sclerœdema, *i. e.* hardness and serous infiltration of the subcutaneous cellular tissue more or less diffuse; eight had sclerema, *i. e.* hardening and dryness of the subcutaneous fat. In two cases only were noticed attacks of eclampsia more or less violent and generalised. The urine in eleven cases was not much diminished in quantity, scanty in six, occasionally leading to anuria; these variations bore no relation to the sclerœdema. In some cases hereditary influence was noticed, the mothers having either chronic nephritis or eclampsia. The prognosis is identical with that of the cause. "Renadene" was administered in one case, one gramme per diem, and seemed to have a beneficial influence on the convulsions, the infant recovering in ten days.

VINCENT DICKINSON.

A case of polyuria in a child aged 3 years ('*Reports of The Society for the Study of Disease in Children*,' vol. I, p. 17).—J. H. Sequeira narrates a boy aged 2 years and 10 months was admitted into the North-Eastern Hospital for Children on April the 30th, 1900. The family history presented nothing of importance. The patient was suckled until he was fourteen months old. He had whooping-cough at the age of eight months, and since then the mother had noticed that the child suffered from great thirst, with increased frequency of micturition.

On admission the patient was an ill-nourished child, weighing only $16\frac{3}{4}$ pounds. The skin was unusually dry and pale, except on the cheeks, where there was a red flush. There were evident signs of rickets. The urine was pale yellow in colour; sp. gr. 1010; reaction, alkaline; a faint trace of albumen was present, and at times reached 1 per cent.; no deposit and no tube-casts; the daily quantity which could be collected varied from 19 to 40 ounces, besides some which could not be measured. The amount of fluid drunk daily varied from 1 to 2 pints. Albumen was not always present in the urine. The patient's temperature, which was usually normal, rose on two or three occasions to 100° F. The child was removed from the hospital, and was re-admitted on September the 26th, 1900. The urine at that time was still alkaline, of a specific gravity of 1015, and 36 ounces passed as a daily average. The child had steadily been losing flesh. The retinæ were examined and found to be healthy. The pulse was somewhat frequent; its tension was not raised. The child remained in very much the same condition for several months, but steadily lost weight. By centrifugalising the

urine a small deposit was obtained, which was found to contain a very few granular tube-casts. The child at last became comatosed and died, about nine months after the first admission to the hospital, from what appeared to be uræmia.

At the post-mortem examination the kidneys were found to be large and granular, and showed cirrhotic changes on microscopical examination. There was some hypertrophy of the left ventricle of the heart. The other organs were normal.

JAMES E. H. SAWYER.

A case of chronic interstitial nephritis in a girl aged 7 years

(*Reports of The Society for the Study of Disease in Children*, vol. 1, p. 69).

—**Leonard Guthrie** narrates a girl aged 7 years and 3 months was admitted into Paddington Green Children's Hospital on January the 6th, 1893. The father died of rheumatic fever and "some brain trouble." The mother was fairly healthy, but was "subject to fits," and had had six miscarriages at varying intervals. Two children had died from scarlet fever. Four children were alive, two of whom had had rheumatic fever. The patient was weakly as an infant, and suffered from diarrhœa and vomiting, until weaned at twelve months. With the exception of measles, when "quite young," she had no illness until two months before admission. She then became the subject of attacks of frontal headache and vomiting, which came on two or three times a week, chiefly in the morning. She often shrieked out with pain, and felt very giddy, and she staggered during one of these attacks which lasted about one hour. She complained that she could not see. Vomiting often occurred after taking food; the appetite for food was good, and she generally slept well, although she awoke, at times, screaming with headache. It was noticed that she had been passing an increasing amount of urine.

On admission she was thin and undersized, dull and listless, and her eyes were sunken and her complexion sallow. The skin was dirty-looking, coarse, and dry; there was no œdema; the finger-nails were somewhat clubbed. The ocular fundi were normal, and nothing abnormal was found on examination of the lungs. The apex-beat of the heart was in the sixth interspace, just outside the left nipple-line. The second aortic sound was accentuated. The pulse was very small, hard, and thready, and of extremely high tension—90 per minute. The brachial artery could be rolled under the finger as a hard, small cord. Neither the liver nor the spleen was enlarged. The urine was of a pale straw colour; sp. gr. 1010; neutral; albumen, " $\frac{1}{5}$ " on boiling.

On January the 10th she was drowsy, and cried once or twice with headache. A few granular casts were found in the urine. On the 17th she had a convulsive seizure, which lasted about half an hour, and in which there was twitching of the right facial muscles, of the right arm and leg, and also a little of the left arm. The breathing was very shallow, and of Cheyne-Stokes variety; and the pulse, at first slow, became rapid and feeble. On January the 30th there was another fit, in which there was loss of consciousness, lividity, and foaming at the mouth. During this seizure the breathing, which was at first stertorous, later became shallow. The right side was again affected. There was conjugate deviation of the eyes towards the right side, and there was also horizontal nystagmus. The right arm and leg, in which there was twitching, became flexed and then rigid. Under chloroform the breathing became fuller and more even, and the spastic movements and rigidity disappeared.

She wasted rapidly. There was never any trace of œdema. The skin of the abdomen became wrinkled and inelastic. On February the 4th there was some left-sided paresis of the face, arm, and leg, and the tongue was protruded towards the left. She had difficulty in swallowing. The knee-jerks were absent. On the next day the hemiparesis had disappeared, and there was no difficulty in swallowing; she complained of thirst. The apex-beat of the heart was one inch outside the left nipple-line, in the sixth space, and the second aortic sound was accentuated. On February the 8th, coma supervening, she died at 5 a.m. The daily quantity of urine passed varied considerably from time to time, and on the days on which the fits occurred it was very small. The amounts passed were—

	January.								February.		
	10	17	18	19	20	24	30	31	1	2	4
Urine in ounces	34	25	14	50	84	64	18	18	73	106	22

There was no incontinence of urine during the fits; on two occasions (on January the 24th and February the 4th) there was some hæmaturia.

Post-mortem examination.—The body was extremely emaciated. There was no trace of œdema. There were some purpuric spots over the sacrum, and also one on the forehead. There was a general brownish-yellow discoloration of the skin. The left ventricle of the heart was extremely hypertrophied and slightly dilated. There was a small quantity of clear fluid in the pericardium. The cardiac valves were healthy. At the apex of the left lung there was a tubercular mass about the size of a hazel-nut. There was some general venous congestion of the liver. The spleen was normal in appearance. Both kidneys were distorted, puckered, and shapeless. In each the capsule was adherent in parts, and where it was most adherent, there the distortion was chiefly marked. On section they were found to be of a mottled yellow colour, and coarse in appearance. Their consistency was tougher than normal. There were a good many small hæmorrhagic patches scattered through their substance. There was little apparent distinction between cortex and medulla, and the cortex, where it could be identified, was atrophied. The left kidney weighed $1\frac{1}{4}$ ounces, and its pelvis was dilated, but not the ureter. The right kidney weighed $3\frac{3}{4}$ ounces. A microscopical examination of the kidneys showed that the condition was "one of diffuse interstitial nephritis, both of old standing and apparently of recent date." On examination of the brain a hæmorrhage as large as a hen's egg was found in the right centrum ovale majus, and another as large as a golf ball in the right occipital lobe. There were several small hæmorrhages in other portions of the hemispheres, varying in size from a pin's head to a pea. No source of the hæmorrhages could be discovered. The walls of the arterioles, both meningeal and cerebral, were found, upon microscopical examination, to be thickened in all their coats.

Dr. Guthrie discussed the diagnosis and the etiology of chronic interstitial nephritis in children. He brought forward arguments in support of the view that syphilis may be the chief factor in the causation of the condition.

JAMES E. H. SAWYER.

Constitutio Lymphatica: Lymphatism (*Transactions of the Royal Academy of Medicine in Ireland*, vol. XIX).—**George Peacocke** records five cases of sudden death in young children.

I. A child went to bed perfectly well at night, but on waking in the morning the parents thought he "looked queer," and immediately brought

him to the Adelaide Hospital, where, on examination, it was found that life was extinct. The child was well nourished and cared for. A very thorough autopsy revealed only the following abnormal conditions:—"The thymus seemed unusually large, but no exact measurements were made. The mesenteric glands were greatly enlarged. Peyer's patches were very distinct and swollen, and the solitary follicles throughout the entire intestinal tract were so prominent as to give the appearance of grains of sago closely set in the mucous membrane; this condition was most noticeable in the duodenum and jejunum."

II. A boy, aged 10 years, had been apparently not in his usual health for a few days, but not sufficiently unwell to seek medical advice. He was suddenly seized with an attack that was described as convulsions, and when brought to the Adelaide Hospital was found to be dead. "The post-mortem, as in the previous case, showed that the boy was well cared for. There was slight congestion of one lung. The mesenteric glands were enlarged. Peyer's patches and the solitary follicles prominent and swollen. All the other organs healthy. There is no note taken of the condition of the thymus, so I presume it was at any rate not very large."

III. A child, aged 4 months, was undergoing electrolysis for a nævus on the lower lip, and on several occasions had chloroform. The child was, except for the nævus, an apparently healthy child, well nourished, and in fact rather large. The fatal result did not take place on any of these occasions, which was a matter for congratulation owing to its frequent occurrence. Death took place quite suddenly. "The post-mortem made by Dr. J. Alfred Scott was most exhaustive. No enlarged superficial glands were noticeable. The heart was healthy. One lung showed some congestion, and there was one slightly enlarged bronchial gland. The thyroid and larynx were normal. The thymus measured four inches in length. The mesenteric glands were greatly enlarged. Peyer's patches were more prominent than normal, and the solitary follicles of the large intestines were distinctly enlarged, but not at all to the same extent as in the previous cases. The spleen was firm and somewhat increased in size, but the Malpighian corpuscles were not peculiarly prominent. The brain seemed perfectly healthy."

IV. A small, badly-nourished child, aged 9 months, had been, according to the mother, in his usual health until the day previous, when he seemed to have a slight cold and cough. On the day of his death he had been given his dinner of bacon and cabbage (!), and shortly afterwards was seized with some kind of fit, in which his face became quite black. When brought to the hospital life was extinct. Dr. Alfred Scott made a very thorough post-mortem. "The glands in the axilla were considerably enlarged. The lungs showed a patch of congestion on each side. The bronchial glands were not enlarged. The thyroid and larynx appeared normal. The thymus measured three inches in length. The mesenteric glands were very much enlarged, but there was no evidence of any hyperplasia of the lymphoid structures in the intestine. The spleen was enlarged, and the Malpighian corpuscles were very well marked. The brain was not examined."

V. A boy, aged 6 years, was admitted to the Adelaide Hospital, being suddenly taken ill in the morning with fever, headache, some irregularity of the pupils, and retraction of the head. He also had a discharge from the right ear. He rapidly grew worse, and death ensued within twenty-four hours of the onset of the illness. The following day Dr. Peacocke made a post-mortem examination. The brain was healthy. "On opening the thorax I

was struck with the size of the thymus gland, and it occurred to me that possibly I might find further evidence of the lymphatic constitution. The lungs showed evidence of pneumonia. The lower lobe of the left lung was solid and airless, and there was a patch about the size of a walnut in the lower lobe of the right lung, also solid and airless. The heart seemed healthy. Examination of the abdomen revealed great enlargement of the mesenteric glands. The spleen did not seem affected, and the other organs, with the exception of the intestinal tract, appeared normal. On opening the small intestine it was at once apparent that the adenoid tissue was abnormal in appearance, the solitary follicles were very much enlarged and prominent, and Peyer's patches were quite distinct and swollen. The solitary follicles of the large intestine were very distinct, but not so swollen as in the small intestine." Dr. Peacocke adds:—"This case is of very great interest; the cause of death was no doubt primarily pneumonia, . . . but may it not be that he was the subject of lymphatism—the appearances at the post-mortem are very suggestive of this,—and that thus his power of vital resistance being below the normal standard, he was unable to resist the sudden acute attack of pneumonia, and the slender thread of life was quickly snapped across."

Dr. Peacocke has since brought under the notice of the Dublin Biological Club the following additional instances of the disease:

VI. "A boy of fourteen had been in a school for nine months. He did not ever appear to be a very robust boy, his skin being of a yellow colour and his lips always blue. He never was sufficiently ill to need advice, but for the week previous to his death he was laid up with toothache and sore throat, and was recovering nicely. After drinking some hot milk it was noticed he was looking faint, and as he did not seem to rally I was sent for. When I arrived life was extinct." Post-mortem (for the coroner) revealed: "The bronchial tubes were filled with a frothy, slightly purulent secretion; one lung especially was very much congested. Heart normal. In opening the pericardium I cut through what I at once recognised as the thymus; on removing it I found it was 125 mm. in length, 50 mm. in width, 22 c.c. in volume, 25 grms. in weight (according to Friedleben, the maximum corresponding numbers for a normal thymus being 84 mm., 41 mm., and 23 c.c., by some regarded as too high). The mesenteric glands were greatly enlarged. The Malpighian corpuscles of the spleen were prominent and the adenoid tissue of the intestines hypertrophied." Professor Scott reports on the spleen as follows:—"The spleen showed that the centres of many of the Malpighian corpuscles were paler than usual, apparently due to slight increase of connective tissue rather than an endothelial proliferation (as described). The spleen pulp contained an unusual amount of lymphoid tissue, which was somewhat localised, giving the idea of new Malpighian corpuscles forming without the usual relation to the walls of the blood-vessel."

VII. A boy, aged 5 weeks, had had several "weak fits," in which the colour of his face became grey, but had recovered from them. The one preceding his death was a similar attack, but when brought to the hospital he was moribund, and died in a few minutes. Post-mortem examination showed that the solitary follicles of the large intestine were unduly prominent. Peyer's patches were distinct, but "I could hardly say hypertrophied." The spleen was not enlarged, but the Malpighian corpuscles could be easily seen. The mesenteric glands were slightly enlarged. The thymus measured in length 68 mm., in breadth 56 mm.; its volume was 25 c.c.; 26 grms. in weight. It was a bulky thymus, and though little more than half the length

of the thymus in the previous case, it was 3 c.c. more in volume. This, perhaps, more nearly corresponded to some of the cases of thymus Tod reported by earlier writers.

VIII. "I was summoned hurriedly to see a baby, two months old, who was said to be in convulsions. I had been attending the child about ten days previously for an attack of diarrhoea, but he had completely recovered. When I arrived in less than ten minutes' time I found the child dead. I was informed that the nurse had attended to the child at 4 a.m., and he seemed in his usual health. About 7.30, when she awoke, she noticed the child looked queer, and carried him at once to the mother. I believe the child at this time was dead. I was unable to obtain any post-mortem examination, but I cannot regard the case in any other light than that of lymphatism. One point perhaps of some importance is the fact that several other children in this family have enlarged tonsils and, I believe, post-nasal adenoids. Two other children in the same family died in infancy — I believe from convulsions."

Of nine cases recorded and verified by post-mortem examinations, three were in children who at the time of death were apparently in perfect health. In one the child had been ill for twenty-four hours with pneumonia. In the remainder some trivial complaint, such as a slight cold, had been noticed. All were in well-nourished children. The organs chiefly affected were the spleen, thymus, lymphatic glands, and adenoid tissue of the intestines. *Spleen*: Malpighian corpuscles prominent in five; organ enlarged, but Malpighian corpuscles not apparently affected in one; no change in two, and no record in one. *Thymus* enlarged in seven (accurately measured in five); in one case no note, and in one the measurements given are not complete. *Lymphatic glands*: In every case the mesenteric glands were enlarged, but in one only was there enlargement of the superficial glands, and this case, curiously, was the only case in which there was not some evidence of the hypertrophy of the *adenoid tissue in the intestine*. Symptoms during life appear to be (1) pale skin, pasty expression, but fat; (2) superficial glands enlarged; (3) hypertrophy of tonsils and post-nasal adenoids; (4) spleen palpable; (5) thymus percussable; (6) lymphocytosis (Ehrlich). The cause of death is attributed to cardiac paralysis or asphyxia, but it would seem reasonable to advance the hypothesis that the condition which is present in lymphatism is one of lympho-toxæmia. Many such cases must occur in hospitals overlooked by house-surgeons, who make post-mortem examinations for coroners, and many dead children are not examined even at inquests where lymphatism may be present.

LANGFORD SYMES.

The relation of the status lymphaticus to sudden death, death under anæsthesia, and infection (*Johns Hopkins Hospital Bulletin*, October, 1903, p. 270.—George Blumer.—The views set forth are based upon the personal study of nine cases of sudden death in infancy and childhood, and upon the study of the literature. As to whether it is possible to make a diagnosis of the status lymphaticus before the onset of the attack, which is the immediate cause of death, the author mentions Escherich as stating that such patients usually have a pale, thin skin, a pasty complexion, and a good pad of subcutaneous fat; frequently signs of rachitis or scrofula are present. The superficial lymph-nodes, especially those of the neck and axilla, are enlarged; there are hypertrophy of the tonsils and pharyngeal adenoids, and the spleen is often palpable. Daut adds that a percussible thymus may develop later, and Ewing's work suggests that an increase

in the lymphocytes is probably present. Of the clinical symptoms that precede the attack little is known, though the immediate causes of death are probably only two—cardiac paralysis and asphyxia.

Many of the infants found dead in bed, and of those supposed to have been overlain, belong to this class of cases. Most of these cases dying with symptoms of respiratory difficulty may be classed under the head of thymic asthma; percussion usually reveals the enlarged thymus gland. When the attacks of thymic asthma are not so severe operation has been done, the enlarged thymus removed, and the symptoms relieved.

In regard to sudden death during anæsthesia in such cases, almost all observers agree that there is cardiac failure; at first it was thought, therefore, that chloroform was especially dangerous, but lately it has been shown that ether is also dangerous in the status lymphaticus. Patients with adenoids and those with goitre seem especially liable to death under anæsthesia if the status lymphaticus is also present. In regard to infections and their course in such cases, Daut found that in a series of patients from Escherich's clinic over a quarter of the patients dying from diphtheria presented the picture of the status lymphaticus.

The pathology of the condition is broadly a hyperplasia of the thymus and of the lymphatic tissue all over the body. Other lesions are hypoplasia of the vascular system, and in some cases compression of the trachea; there may be a lymphoid condition of the bone-marrow, and occasionally an enlarged thyroid gland. Microscopically the lesions are generally hyperplastic, along with slight degenerative changes in the proliferated cells composing the germinal centres. Bacteria do not seem to play any part in the causation of the condition.

After discussing the various theories of the cause of death in this condition the author gives as conclusions—

1. The condition known as status lymphaticus is a definite pathological entity.

2. It is probably associated with, if not due to, a condition of intermittent lymphotoxæmia.

3. It may be associated with sudden death, probably as a result of lymphotoxæmia alone in some cases, or as a result of the action of toxic, physical, or psychical injuries, which are rendered much more powerful than usual by the predisposing action of the lymphotoxæmia.

4. In some cases the sudden death is due to asphyxia from pressure of the enlarged thymus on the trachea.

5. The subjects of the status lymphaticus can be recognised clinically in some instances.

‘*Archives of Pediatrics.*’

Surgery.

Errors in sex revealed by surgical operation (‘*Jahrb. f. Sexuelle Zwischenstufen*,’ 1903, v. *Jahrgang*).—Neugebauer gives a critical analysis of 134 cases of operation on pseudo-hermaphrodites, in particular with regard to errors of sex revealed in the course of the procedures. The cases are divided into six groups. In the first are thirty-eight cases of supposed female children in which an operation for hernia showed the sex to be male. In the second group are four herniotomies in hermaphrodites considered of female sex, two of which proved to be male. In the third group are thirteen cases of male or presumably male children in which, in the course of a herniotomy, a uterus or one or both tubes were found in the

hernial sac or the abdominal cavity. The fourth group contains forty-five cases operated on for a variety of conditions, among which were thirty-two examples of benign or malignant tumour of the sexual organs; in these forty-five cases there were no less than twenty cases of error in sex determination; in nine the sex could not be decided, although in five of these an abdominal section allowed a complete examination. The fifth and sixth groups concern cases in which various operative procedures were carried out on the external genitals.

KEITH MONSARRAT.

On the operative treatment of vertebral tuberculosis (*v. Langenbeck's 'Archiv.' Bd. LXXI, Hf. 2*).—**Wieting** discusses the question under what conditions are operative procedures to be recommended in tuberculosis of the vertebræ. When the disease affects the vertebral arches operative treatment should be undertaken as early as possible, provided the general condition is good. The diagnosis between this condition and the affection of the bodies must of course be first satisfactorily established; the diagnostic point of most importance is the absence of pain on pressure in the long axis of the column when the bodies are unaffected. Abscesses in connection with posterior disease take a course different from that which is usual in anterior disease—they tend to pass backwards between the back muscles and the spines, and both abscess and bone disease can be satisfactorily reached in this region. The prognosis of posterior disease is much more favourable, if treated surgically, than that of anterior disease, and the operation presents no technical difficulties. The technical difficulties in anterior disease are, on the other hand, great, and early operation should not be undertaken here. It is indicated in cases where the spondylitic process has ceased, but symptoms of pressure on the cord show no tendency to disappear or are increasing in severity; also in paralysis when this does not show signs of clearing up after a month's treatment, and in cases without spinal cord symptoms in which processes of repair do not show satisfactory progress after several years' rest. In some cases operation will aim merely at the aiding of repair and the lessening of secretion; in others the bone disease itself can be dealt with. In operating on the vertebral bodies the extremities of the ribs are exposed and portions of one to three, according to requirements, resected with the transverse and articular processes. The greater the angular curvature the easier it is to reach the bodies, and the spinal canal can be satisfactorily opened from the side. The question of the development of retro-pharyngeal abscess is considered at the end of the article, and the writer expresses the view that the great majority, if not all of these abscesses, originate in tuberculous retro-pharyngeal glands.

KEITH MONSARRAT.

Reviews of Books.

THE PHYSIOLOGICAL FEEDING OF INFANTS. By ERIC PRITCHARD, M.A., M.D.Oxon., M.R.C.P.Lond. Pp. 197. Publisher: Henry Kimpton.

IN the first 114 pages of this book the author describes the simple methods of feeding infants, in a clear and elementary manner, and illustrates some of the results of bad methods of feeding by details of cases successfully

treated. The next 66 pages are devoted to the development and physiology of infancy. Although in such limited space it is impossible to treat either subject fully, the work may be honestly recommended as suitable for medical men on commencing practice, and for well-trained nurses or intelligent mothers. It is written in simple non-technical language, with occasional rhetorical touches unusual in scientific works, but more common in books meant to impress the lay mind. In some respects the author is both too dogmatic and too egoistic. To any one unacquainted with medical works it might appear that he alone is a competent authority in this country on the subject of infant-feeding and development. Occasional reference is, however, made to the work of American and foreign experts. On the subject of breast-feeding the advice given is quite sound, though at times the author's methods involve an amount of trouble rarely necessary. Few physicians attach the importance ascribed by the author to a baby getting too much breast-milk at a nursing. The regurgitation, immediately following, generally counteracts over-distension of the stomach from over-feeding. It seems rather unnecessary, and somewhat of a hardship to mother and child, that the latter should be weighed both before and after every time it is put to the breast. Such a proceeding is an exaggeration of the value of weighing, and would hardly raise feelings of gratitude in a mother at, say, 3 a.m. on a cold winter's morning. On the question of percentage feeding, Dr. Pritchard still strongly supports the laboratory method and does not appear to realise its main defect, what might be called the *toujours perdrix* character of the meals. He wisely prefers a system of home modification, depending chiefly on a cream containing 16 per cent. of fat. Of the three methods which he recommends for obtaining such a cream, only one can be relied on, and that is to order a cream of this percentage composition from one of the dairy companies. Such a cream is probably obtained by centrifugalisation, to the disadvantages of which the author is not blind. Although the milk mixtures may vary a little, if made according to the methods recommended, such variations are probably valuable rather than injurious. The chapters on development and the physiology of infancy are accurate and sufficiently full for the purposes for which they have been written. Abstracted in pamphlet form, the information contained in the book would be of greater value and more readily made use of by both mothers and nurses. The title does not seem very appropriate to the subject. One cannot help being struck by the absence of physiology and physiological chemistry in the part of the work concerned with feeding. Perhaps a more accurate title would be "The Feeding and Development of Infants." Certainly the term "physiological feeding" conveys no meaning, and suggests that if the diet proves unsuitable the babe is being "pathologically fed."

EDMUND CAUTLEY.

THE PHYSIOLOGICAL NURSERY CHART. Designed by ERIC PRITCHARD, M.A., M.D.Oxon., M.R.C.P.Lond. Publisher: Henry Kimpton.

THE feeding of infants for whom the breast is not available is frequently of a very unsatisfactory and haphazard nature. It is often left in the hands of a very imperfectly educated nurse without any special training in the subject. We consider that it would be of great advantage to artificially fed infants if the advice of a physician skilled in such matters was periodically sought, and feel sure that a large number of infantile complaints would be arrested if this were done. This chart is drawn up as a kind of compromise

between this ideal and the usual method of feeding; it gives the proportions of milk desirable for the average infant at different ages, with the amounts necessary and the proper times for feeding. The method of preparing and sterilizing the milk is described, and a chart is given in which the weekly weight of a child may be recorded during the first year. On the reverse of the chart are directions for what to do in case of sudden illness, poisoning, etc., which may be useful where a doctor cannot be immediately summoned. There is also a list of nursery aphorisms which are exceedingly sound and of great value if properly attended to in the nursery. We feel sure this chart will be a useful addition to any household, but we would suggest that the name and qualifications of the author should be omitted.

PORTER PARKINSON.

LATERAL CURVATURE OF THE SPINE, STOOPING, ETC. By NOBLE SMITH F.R.C.S.ED. Publishers: Smith, Elder and Co. Price 2s. 6d.

THIS small book of 133 pages describes in a clear and simple manner the practical points connected with the management of lateral curvature of the spine. We welcome the recognition by the author of the beneficial effects of properly carried out muscular exercises. It is obvious throughout that his bias is for mechanical support, but this may be due to the fact that Mr. Noble Smith sees chiefly those cases in which exercises have failed. The author again states briefly and well the case for the treatment of spinal curvature by the use of Chance's apparatus, and there is no doubt but that in his hands this treatment is crowned with the best possible results. He also definitely gives his opinion that its use should be combined with carefully devised medical exercises and the administration of a full and nutritious diet. The chapters on "stooping" are in every way excellent, and the causes of that condition and its treatment by exercises are pointed out.

Mr. Noble Smith's enthusiasm for Chance's apparatus leads him to urge its use for the development of the chest in phthisis, a treatment which it seems to us unlikely he will be successful in persuading the profession to adopt.

PERCY LEWIS.

Correspondence.

BOOK REVIEW.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—In the review of my "Nutrition of the Infant" Dr. Cautley passes some remarks in regard to the book being sent for review to certain journals of the non-medical press. I may say that the course adopted has very good precedent, and it appears to me somewhat unreasonable to contend that writings in regard to "milk-supply," "artificial feeding," "infantile mortality," etc., should be absolutely limited to medical papers. But Dr. Cautley states that the publishers have advertised the book in the non-medical press. I am informed that this is not the case. Would he be good enough to say when and where these advertisements appeared?

I am, Sir, yours faithfully,

RALPH VINCENT.

March, 1904.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—The verb “to advertise” means “to give notice generally to the public.” Surely that is the primary object of a review, and it is quite accurate to regard a review as an advertisement. Perhaps, instead of using the words “advisable to advertise the book, and to get it reviewed in the non-medical press,” I ought to have written “advisable to advertise the book by getting it reviewed, etc., etc.” On the question of the justification of such a procedure I expressed no comment beyond stating that “In no sense of the word can the book be regarded as a popular one, or as written with a view to impressing the general public.” Surely Dr. Vincent cannot wish to controvert that opinion. I should be extremely sorry to do him the least injustice.

I am, Sir, yours faithfully,

EDMUND CAUTLEY.

March, 1904.

MILK DISPENSARIES FOR CHILDREN'S HOSPITALS.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—I have read with great interest your article advocating the supply of milk to poor children under the supervision of the authorities of the various children's hospitals, and I desire to express my sympathy with your suggestion on this matter. The Corporation of Liverpool have for some time now been supplying sterilised and diluted milk to children in the poorer parts of the town, and they deserve the greatest possible praise for their efforts to prevent the direful results which accrue to infants who are artificially fed in the insanitary surroundings in which they live, and for their recognition of the possible infection of such children with tuberculosis in addition to the dangers arising from the milk poisons and dirty bottles. There is, however, no doubt that the methods which they have employed might be improved upon or supplemented.

At the Health Congress which was held in Liverpool last summer, in speaking on this subject I pointed out that it would be of the greatest advantage if the milk could be dispensed to children under medical advice, because the stereotyped dilutions which are kept in stock for children of varying ages will certainly not agree with every child within the age limits for which they are prepared. Infants have idiosyncrasies, and from practical experience we know only too well that a dilution which has suited one child admirably will disagree entirely with another of the same age, and I am strongly of opinion that the milk should be dispensed under the auspices of a most careful medical supervision. At the dépôts the authorities are only likely to hear of those cases which do well, because they will return for fresh supplies, but when the prepared milk disagrees, the children are no doubt taken to the hospitals, or the treatment is discontinued and they are not heard of again at the milk dépôts. I should very much like to see a scheme at work which would provide for the feeding of the infants under medical supervision.

I am, Sir, yours faithfully,

CHARLES J. MACALISTER.

Rodney Street, Liverpool. March, 1904.